Historical Archaeology in South Africa

Material Culture of the Dutch East India Company at the Cape

Carmel Schrire

WITH CONTRIBUTIONS BY

Jeffrey Durst
Adam Heinrich
Stacey Jordan
Jane Klose
and Carolyn White

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DEDICATION

This work is dedicated to the members, past and present, of the
Department of Archaeology at the University of Cape Town,
in appreciation of their support, encouragement,
and interest over many years.

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The information on the CD is organized as follows:

CATALOGS
This folder contains PDF catalogs of the collections.

— **Asian Ceramics** (Chapter 4)

— **Coarse Earthenware** (Chapter 5)

— **European Stoneware** (Chapter 6)

— **Glass** (Chapter 8)

— **Gunflints** (Chapter 11)

— **Metal and Molds** (Chapter 10)

— **Personal Adornment** (Chapter 9)

— **Refined Earthenware** (Chapter 7)

— **Tin Glazed Earthenware** (Chapter 7)

SELECTED COLOR IMAGES
This folder contains color images of selected greyscale illustrations in the text in order to provide additional depth and detail,listed in folders by chapter.

VIDEO (Reconstruction Appendix B)
This video is about the reconstruction of the VOC Outpost at Oudepost I.

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CHAPTER 1

The Background of the Archaeology of the VOC at the Cape

Carmel Schrire

Introduction

The Company man was born in southern Germany around 1670 and in the manner of the landless poor at that time he had knocked about quite a bit, working on privateers, merchant ships, and warships that took him to England, Holland, France, Portugal, Italy, Sicily, and Malta. Martin Wintergerst had seen a thing or two by the time he signed on to the *Zion*, a trading ship of the great Dutch East India Company, bound for Ceylon. It had been a miserable voyage out but at last they had dropped anchor in Table Bay, at the Cape of Good Hope in October 1699. Spring was in bloom and the days were lengthening here at this, the "…best port of call for the East-India ships" where it seemed "…as if God had diligently set up such a Treasury there from which seafarers could reprovision themselves" (Raven-Hart 1971: 460).

The sailor was right about the diligence with which the Cape was provisioned, but he might not have conferred divinity on the operation had he ever peered into a Company storeroom at the Castle of Good Hope. It was more *genizah*[1] than Treasury, a hoarder's dream, crammed with both useful goods that everyone needed and broken junk that no one could bear to throw out. Valuable copper, arms, and trade goods jostled for space alongside broken bandoliers, pots and mole traps, moldy blankets, rotten tobacco, and spotted linen, all property of the Company, and as such, all itemized, down to a "rotten trumpet" (Leibbrandt 1902: 271-278). Such storerooms were way stations where catalogued treasures were eventually reclassified as garbage and consigned to one of many fetid heaps and holes ringing the site. Only in rare instances were these buried wastes brought back to life, excavated, and resurrected as archaeological markers of the Dutch enterprise at the Cape.

Historical Archaeology in South Africa is an account of the context and identity of the material residues of the Company at the Cape. Its intended audiences are professional and avocational archaeologists and historians, as well as curators and collectors who study the material objects related to the rise of mercantile capitalism. Two elements in the title of this work could use some clarification. First, the Company; the initials 'VOC' stand for the *Verenigde Oostindische Compagnie*, translated as the 'United East India Company,' a joint stock venture chartered in 1602 in the Netherlands for the purpose of trading in the East (Boxer 1977, Israel 1989; Sleigh 1980). It operated for almost 200 years until being disbanded in 1799. The Company was run like a state within a state, with its own military and naval operations, its own legal system, and its political power to treat with foreign nations. Second, the regional focus on which this book is based is the 'Cape,' a term that denotes the southwestern districts of the present Western Cape Province, whose colonial Dutch name *'De Kaap'* refers to an area within a day's journey from Cape Town (Penn 2005: 9).

The VOC settlement at the Cape was established in 1652 under the leadership of Jan van Riebeeck, who was instructed by the Company Board of Directors, or *Heren XVII*, to set up a provisioning station to provide fresh water, herbs, and meat to passing ships. This involved trade relations with the local indigenous people, including hunters and herders, amalgamated in the ethnographic and historical records under various guises, and known today as the 'Khoekhoen.' They and their ancestors had occupied the land for hundreds of thousands of years, though pastoralism appeared there only around 2000 years ago. Van Riebeeck was instructed to treat the indigenous

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people well and to employ them and not enslave them, but it soon became clear that the native people would not provide the labor force needed to build and maintain the settlement. Consequently, slaves were imported from the VOC realms (Armstrong and Worden 1989: 110-111). The first significant shiploads came from West Africa in 1658, but thereafter most slaves emanated from deliberate slaving expeditions to Madagascar, from purchases made in the East Indies and Ceylon, and from the purchase of East African people off foreign ships bound for the Americas (Armstrong and Worden 1989: 111-122). The multiplicity of rulers and residents listed at the Cape implies that the archaeological record of VOC rule there from 1652-1795 includes the residues of indigenous hunters and herders, European functionaries, settlers, farmers, and traders, as well as those of African and Asian slaves brought to the Cape from VOC trading stations on the Atlantic and Indian ocean seaboards (Elphick and Giliomee 1989; Worden and Groenewald 2005; Worden et al. 1998). Together these groups repeatedly crossed the boundaries of law, color, creed, language, and custom, reconstituting their original identities into a social entity called 'Cape' or "Creole' society, terms often subsumed under the canopy of the 'Eurasian' or '*Indische*' world (Worden et al. 1998: 36-83). The settlement grew but VOC control ended when it ceded the Cape to Britain in 1795. Dutch rule resumed under the Batavian Republic between 1803 and 1806, but in 1806 the British took the Cape once more. In 1910, the British colonies at the Cape and Natal were amalgamated with the Boer Republics of the Transvaal and the Orange Free State to form the Union of South Africa, a dominion of the British Empire. This was reconstituted as a Republic in 1961 under the Apartheid regime, and remained so until 1994 when the African National Congress won the first non-racial election under the presidency of Nelson Mandela and heralded in the 'New South Africa.'

The Current State of Historical Archaeology

Historical archaeology was birthed in the mid-twentieth century by well-established parents and contentious midwives. It might have been a surprising invention, perhaps even a destabilizing one, in that most studies, whether empirical, methodological, theoretical, or philosophical, seem obliged to define and redefine the field over and over before getting down to the business at hand (Binford 1962; Deagan 1982, Majewski and Gaimster 2009; Mayne 2008; Noël Hume 1969: 7-20; Orser 1996a, 1996b, 1996c; Schuyler 1970, 1978). Historical archaeology is global in scope, and as such, it may be construed as the archaeology of the modern world (Orser 1996a: 11; Orser 2009). It is congruent with 'post-medieval archaeology' in Western Europe as opposed to the 'colonial archaeology' in Asia, Africa, America, and Australia (Orser 1995: 8-9). Its starting point varies depending on the case under consideration, but for the most part scholars trace the inception of historical archaeology back to the Norse colonies around 870 AD (Crosby 1987: 45), the Portuguese venture into North Africa in 1415 (Orser 1996c: 279) and Columbus' voyage to Hispaniola in 1492 (Deetz 1996:5). Its disciplinary reach encompasses transglobal politics, consumerism, gender, ethnicity, and race, and its frequent manifestations beneath modern cities help incorporate the memories of the past into the urban present (Cantwell and diZerega Wall 2001: 277-304; Shepherd and Ernsten 2007).

An important overview of the field investigates the success with which material elements and texts of historical archaeology actually help to elucidate colonialism, power and inequality, and belief systems as processes over time (Mayne 2008). Selecting a number of key texts (Hall 2000; Hall and Silliman 2006; Orser 1996a, 1996b, 1996c; Hicks and Beau-dry 2006; Leone 2005), Mayne challenges the idea that this text-aided archaeology has illuminated the "other" to produce "entirely new social histories" (Leone et al. 1995: 110). For instance, the notion that the archaeological relics of New York City provide a "unique ability" to identify and unify Americans (Cantwell and diZerega Wall 2001: 8) is rejected because it "dangerously simplifies the relativist challenge that lies at the heart of historical analysis" (Mayne 2008: 102). Historians are as mistaken as archaeologists when the one imagines that a court record of a slave transcript represents the 'voice' of the underclass (as, for example, in Worden and Groenewald 2005: xviii), and the other sees a site as a time capsule that affords a window on the past (Mayne 2008: 102, 103). But putting on the brakes is hard in a discipline avid for relevance, and hungry to contribute to the discourse about identity and heritage (Leone 2009; Preucel and Meskell 2004a, 2004b). Artifacts, as well as their makers and users, have to be identified and then set into a series of expanding contexts that include form, function, price, and availability. The problem is, how do we put together the whole picture together, and how do we find a balance between the imagination and the evidence, so that advocacy and subjectivity do not swamp the sheer reality of a material thing? (Mayne 2008: 104-111).

Unlike prehistoric archaeology, which provides access to the preliterate world of its time, historical archaeology is, by definition, yoked to texts. Sometimes it's a companionable mating, but more often, the textual Goliath swamps the Davidic archaeology so that the excavators end up becoming *faux* historians, social analysts, and even advocates. This raises the big question: Does the cost of historical archaeology justify its constant and nagging trend to rediscover things that we already know? Whatever the text—be it a court record, a song, or a memory—is the archaeological enterprise too demanding, too expensive, if all it achieves is simple confirmation? Objects are highly susceptible to this indictment. Certainly it is exciting to find William Strachey's ring (Kelso 2006: 188), the remains of the roast eaten by Thomas

Jefferson, or the slate pencil used by a slave, but unless such objects amplify, consolidate, and amend the written record, the cost of their retrieval far outweighs their intellectual or even emotional contribution. This is why a broader perspective is needed through analyses of well contextualized collections that reach beyond the single find to reveal a bigger and broader picture spread over time and space, a vision of consumption, waste, taste, provisioning, identity, and heritage that reaches out into places that texts often miss.

The essays in this book try to incorporate and address all these reservations and ambiguities. They provide the data lying at the heart of our archaeological analyses, the elements of site formation processes and of material items, and eventually, the pieces of evidence that can be reconciled to reveal the role and identity of its occupants and creators, both voiced and voiceless. These then are the analyses of the material residues of the VOC at the Cape that are trying to say something new and interesting about the society in which they once functioned.

Historical Background of the VOC

It is one thing to classify these remains, to name them, source them, and fit them into a range of descriptive and analytical terms, but it is crucial to realize that the material remnants are a mirror of a far greater enterprise, whose "uniquely politico-commercial institution" dominated Asian trade for almost 200 years (Israel 1989: 71).

The VOC was chartered in 1602 in the Netherlands by the States General and was the largest commercial enterprise of *ancien régime* Europe. It was the eastern equivalent of the West India Company (WIC), chartered in 1622, that operated from the western seaboard of Africa to America. Its theatre of operation encompassed a great gore of the globe stretching from the Baltic to Bali and down to the Cape of Good Hope, a region that was opened to European shipping by the Portuguese over a century earlier and whose immense and unprecedented impact on commerce was placed on a par with the discovery of America (Marx and Engels 1888: 3). The VOC was run at home by a federated Board of Directors called the *Heren XVII*, drawn from the confederate states and abroad by a Governor General chosen for his experience and expertise (Israel 1995: 946-9). The power invested in these two companies produced the first genuine global economy. Israel (1989, 1995) challenges the idea that Dutch domination of world trade in the 17th and18th centuries was birthed by the Netherlands simply stepping into the waning ambit of Spain and shifting the focus from the medieval operations in the Eastern Mediterranean to North Europe where, by virtue of their strategically placed center, the Dutch were able to stockpile goods and dominate the carrying trade (Israel 1989: 3, 379-80). Instead, he holds that the roots of the Dutch world-trade primacy from 1590 to 1740 lay in their creation of the first world trade entrepôt that used its own shipping to handle bulk goods and rich trades. In other words, the core of the economic success of the United Provinces was not simply political and economic control, but an astute combination of infrastructure and expansion, wherein a federation of maritime towns, manufacturing centers, fishing ports, and agricultural centers operated in concert with productive efficiency, technological innovation, speculative trading, and stockpiling of commodities.

The workings of the VOC differed from the way their predecessors in Antwerp had operated in Europe. It was not simply that the Dutch engaged in bulk transport, with independent shipbuilding and ownership providing cheap carriage for valuable goods like wool, textiles, spices, silk, silver, and copper and setting the highest prices. Nor was it merely that the Dutch were efficient producers of agricultural and marine products, because they also invented new technologies in production of lumber, minting, and textile production (Israel 1989: 410). The key to Dutch primacy in world trade was the nature of the complex link between the State and its trading companies, specifically, the VOC and the WIC. The VOC was a joint stock company, a complex and highly diversified blend of business and redistribution (ibid.: 16). It was an "uniquely politico-commercial institution" that could only have functioned in the United Provinces, because they were the world's only federal republic that was committed to trade, industry, and navigation, all backed by naval and military power (ibid.: 71). The Dutch maximized profits by dispensing with intermediaries. They bought commodities at source and transferred them on their terms and prices. The United Provinces were brilliant in protecting and advancing trade at home and abroad by imposing regulations on production that kept standards high and prices even better. Low interest rates allowed brilliant speculative buying and profitable sales, with "…arm-twisting, exploitation and commodity manipulation…" that simultaneously stymied competition while generating respect for the Dutch as fair dealers (ibid.: 413-414)

The VOC established an inter-Asian trade network extending from the Red Sea to Japan. Such an entity had never existed before and was unique in its day. By 1657 the VOC had 160 ships in Asian waters (Bruijn et al. 1979a, 1979b, 1987; Israel 1995: 940) and by 1688, some 22,000 men in the field (Israel 1995: 942). It dominated inter-Asian trade (Israel 1989: 187). In East Asia it shipped fine spices, silks, and porcelain from China; copper from Japan to India; and cotton and textiles from India to the Asian archipelago in exchange for pepper and spices. Spices, Chinese silk, Japanese copper, and Mocha coffee paid for silk and drugs from Persia. Pepper and spices helped lubricate the power of silver to buy Chinese wares in Taiwan. In addition, the VOC had a triangular trade with Surat (Gujarat), the Persian Gulf, and the Red Sea. During the 1620-50s, Surat became the hub of the Dutch carrying trade in West Asia, where cloves, copper, and Chinese goods were sold for indigo, saltpeter, and textiles

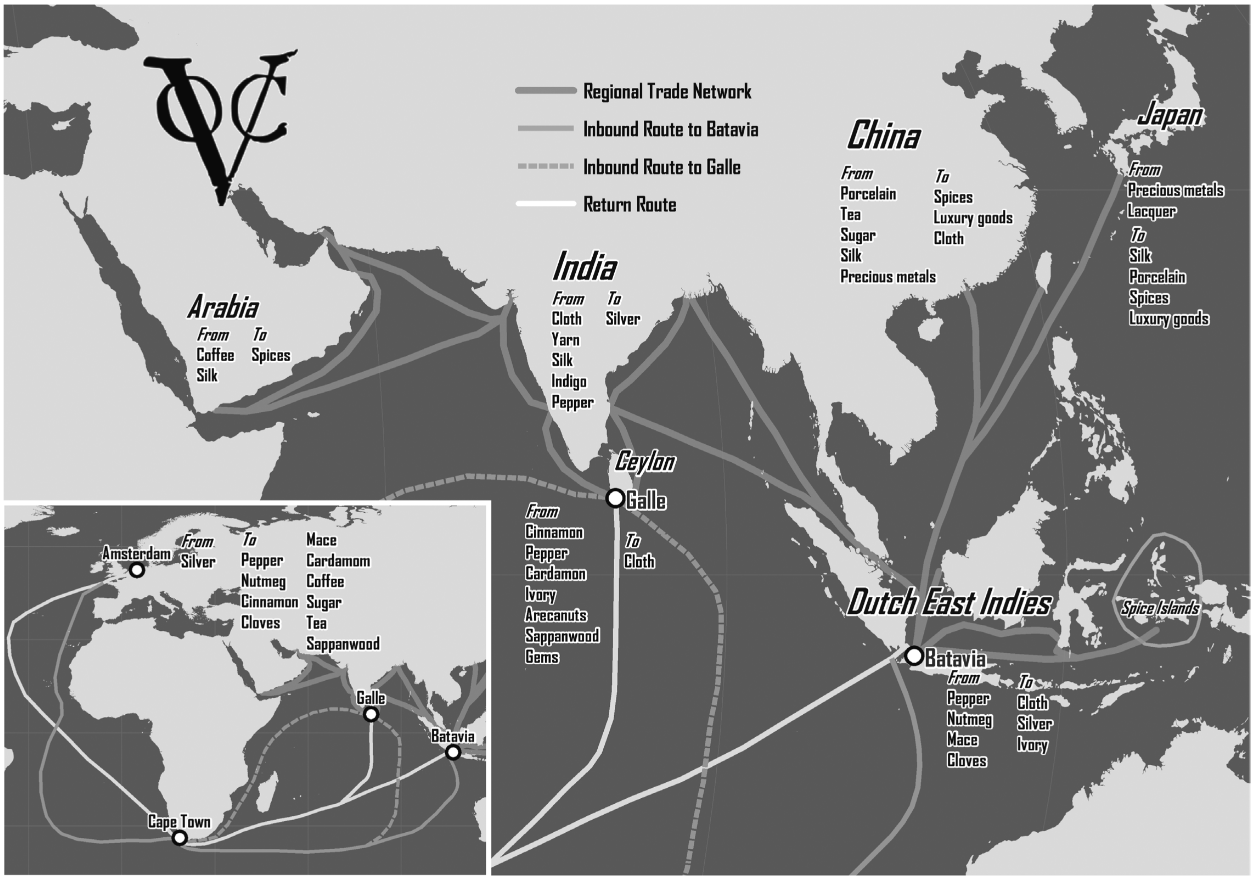
Regional Trade Network
Inbound Route to Batavia
Inbound Route to Galle
Return Route
China
From
Porcelain
Tea
Sugar
Silk
Precious metals
To
Spices
Luxury goods
Cloth
Japan
From
Precious metals
Lacquer
To
Silk
Porcelain
Spices
Luxury goods
India
From
Cloth
Yarn
Silk
Indigo
Pepper
To
Silver
Arabia
From
Coffee
Silk
To
Spices
Ceylon
Galle
From
Cinnamon
Pepper
Cardamon
Ivory
Arecanuts
Sappanwood
Gems
To
Cloth
Dutch East Indies
Spice Islands
Batavia
From
Pepper
Nutmeg
Mace
Cloves
To
Cloth
Silver
Ivory
Amsterdam
From
Silver
To
Pepper
Nutmeg
Cinnamon
Cloves
Mace
Cardamom
Coffee
Sugar
Tea
Sappanwood
Galle
Batavia
Cape Town

Figure 1.1. Map of the VOC trade networks of the 18th century. In J-P Rodrigue, *Geography of Transport Systems.* (Courtesy J.-P. Rodrigue)

that were then shipped out in their turn to compete with Guatemalan indigo in Italian and Levantine markets (Israel 1989: 178-179). This balance was maintained not by constant war but by constant outmaneuvering of Portuguese, Islamic, and Japanese efforts through the judicious use of naval and diplomatic power.

Spices, bullion, sugar, drugs, and jewels all swelled the production of North European goods (Israel 1989: 406). The wider global market now featured whole populations working to produce exports for Europe, Levant, and the Far East: sugar from Brazil, cacao from Venezuela, indigo from Guatemala and Honduras, bullion from Mexico and Peru. Slaves in West Africa wore cloth shipped from Westphalia via Holland. European copper and linen went to West Africa and Indian textiles to Indonesia. Indonesian spices and Japanese copper and silver went to India and Persia, and Ceylon cinnamon and elephants were shipped to India. Spanish brass manillas were recast in West Africa into Benin bronzes, and Dutch silks were unpicked and woven into West African *kente* cloth (Mack 2000: 97, 103, 108). A very fine representation of the complexity of these exchanges appears in a map of the 18th century trade networks (Figure 1.1).

The Dutch colonial empire was riding high from the mid-17th to the early18th century, despite the loss of Netherlands Brazil (1654), Taiwan (1662), and the New Netherlands (1664) (Israel 1995: 936). At its peak, between 1647 and 1672, the Netherlands dominated the European freight trade. It was at this point, in 1652, that the VOC set up the fort at the Cape as a tiny, but crucial, node within the wider context of its many other enterprises, which included strengthening its eastern fortifications, expanding its cinnamon trade in Ceylon, and fortifying the Malabar Coast. Production at home burgeoned too with the manufacture of imitation Chinese ceramics at Delft and clay pipes at Gouda (Israel 1989: 267). The decline started in 1672 with complexities of competition, wars, and trade bans that went on until the VOC wound up its operations in 1799. A plethora of contributory causes included competition by the English and the French, who controlled the market in cotton, raw silk, tea, and coffee, and a wave of 'new style mercantilism' wherein major north European states decided to process and produce their own wool, silk, cloth, sugar, and tobacco and to control the markets as well (Israel 1989: 384). The protectionist policies of other states hurt the Dutch markets, and instead of being producers in charge of dictating prices, the Dutch became mere shippers (Israel 1989: 388-389). Their production centers in Delft and Gouda collapsed under trade bans, and the end came in 1795 when the Netherlands fell to Napoleon and its colonies fell to the British. The Company wound up its affairs and was disbanded in 1799.

The VOC at the Cape in History and Fiction

By 1652 the Company had already been in operation for 50 years and had another 150 years to go. The shipping business was booming, and investors were realizing sufficient profits to spend something on social ills. It was at this point that the VOC established its Cape station under the immediate command of Jan van Riebeeck and under the legal control of its Asian headquarters founded in 1619 in Batavia, Java (Worden and Groenewald 2005: xix-xxi).

The VOC rule at the Cape has a long and complex historiography including official transcripts, daily logs, and visitors' accounts. A recent paper on the writing of VOC history differentiates between English and Afrikaans scholars. Anglophones initially promulgated white settler concerns and then focused on a revisionist view of the roots of racial segregation and identity, whereas Afrikaans scholars, having transcribed and edited the VOC records, tended towards strong empirical renditions (Worden 2007a: 3-6). A turning point in South African historical studies is posited with the publication of *The Shaping of South African Society, 1652-1820* (Elphick and Giliomee 1989). Its contributors were versed in the international discourses of the day that traced the past through a multiplicity of colonial communities, ranging from the rulers to the indigenous people to the imported slaves. Since then, the social histories of forgotten places, frontiers, and people have been revived (Penn 2005; Ross 1993) and resuscitated by VOC historians at the Cape who launched the 'Social Identities in VOC Cape Town' project to document interactions between groups and individuals as seen through the prism of a multiplicity of sources (Worden 2007a: 8-12; Worden 2007b). Their work reflects a growing interest in material culture through the study of household inventories, probates, and auctions, as well as the archaeological residues from VOC sites (http://www.tanap.net/content/activities/documents/index.htm).

Historical and archaeological sources are enhanced by powerful fiction that evokes the past at the Cape. The best-known proponent of this genre is John Coetzee. *Dusklands* might not be his most famous work but it is surely his most brutal rendition of the past (1983). It is a narrative, a relation or *relaas*, that documents a mid-18th century journey by his putative ancestor, a frontier farmer who treks into the interior in search of ivory. Its telling gyrates between truth and fiction, and eventually hones into the icy core at the heart of colonial relations at the Cape. It starts by defining the inexorable gulf between settler and indigene "…his mother was a Hottentot who had scrubbed the floor and emptied the bucket and done as she was told till the day she died" (Coetzee 1983: 57) and ends when the blood-soaked hunter returns home "bearing the liver, my favorite cut, I burst open the door. I was back." (Coetzee 1983: 100). Likewise André Brink's early novels weave a path through the dehumanizing nature of colonial contact, oppression, and slavery (1976, 1982). Finally, I would venture to place alongside the work of these two prodigiously talented men, Dan Sleigh's paean to the Cape Archives. *Islands*, translated from its original Afrikaans by none other than André Brink, transforms the daily logs and Company records into a squalid VOC settlement. It begins with the arrival of Khoekhoe cattlemen coming down to trade at the settlement in 1652, their bone pipes "hissing like lynxes" (Sleigh 2004: 16) and ends with a midnight plash of oars in Table Bay in 1713, as a laundryman paddles between the death ships, collecting the contaminated linens that bring smallpox to the Cape. In between are the banishments, the drinking, the punishments, and the betrayals, all played out on the chain of islands that link people of the past to those of the present.

Imaginings such as these transcend concerns about truth and fiction by capturing the spirit of the place and insinuating its scent and character into interpretations of the past. The studies presented here try to extend these impressions into an understanding of the archaeological residues. Charred cow bones signify the rich officials dining on roast beef, a broken bottle hints at a soldier swigging arrak on the night watch, and a scratched pipkin speaks of a kitchen maid scraping off the crusted stew at the bottom of the pot. Together the residues speak of the leavings of the settlement, where everyone was in the same boat, the ruler praying for his next posting, the soldier yawning till the next watch, the whore keeping an eye out for the next ship, and the slave waiting for his next chance to run off into the mountains. Whatever their ultimate destinies their remains stayed behind, embedded like their joint residues in the garbage of existence at the Cape.

Historical Archaeology of the VOC

Archaeological evidence of the great trading company is found both at home and abroad, in VOC headquarters and outposts, as well as in shipwrecks marking the trade routes that linked the Netherlands and their vast Eastern empire. Materially speaking, the richest archive of VOC trade appears in ships' manifests and in the actual cargoes of numerous shipwrecks that provide tightly dated assemblages relating to official and private trade, taste, wealth, and culture (Bruijn, Gaastra, and Schöffer 1979a, 1979b, 1987). They are too numerous to list here but are referenced repeatedly in the texts and catalogs in this book. Where land based sites are concerned, although some were specifically built and owned by the VOC, the material remains of their Dutch-Asian networks extend far beyond their actual sites of operation, scattered from the original factories, places of production, and ports of lading, outward into the markets and homes of consumers and eventually into the garbage of their cities, towns, outposts, and domiciles. Innumerable sites containing VOC trade goods—the privies of Amsterdam, the palaces of Saxony, and even a garbage pit in Jamestown Virginia—though not specifically listed as VOC locales, constitute important markers of the Company's areas of operation (Baart et al. 1986; Kelso et al. 1999: 47-50; Edo-Tōkyō Hakubutsukan 1996).

Turning to specifics, the network of VOC operations on land is marked by around 300 official sites lying between Africa and Japan that were manned by some 25,000 men in the course of the 18th century (Gawronski 2002). They include castles, forts, schools, hospitals, houses, jails, canals, and cemeteries, all of which constitute the potential meat and bread of archaeological enquiry (ibid.). Excavated VOC sites, range from West Africa (De Corse 2001) to the Cape (as described herein), north up the East African coast to Indian Ocean islands (Floore and Jayasena 2010; Jayasena and Floore 2010), and then east to Indonesia and Japan (Huey 2002: 161-164). Among the important, published sites are excavations at the outpost of Fort Frederik Hendrik in Mauritius, where evidence of both the construction and material culture of the VOC operations is found (Floore and Jayasena 2010; Jayasena and Floore 2010). Turning to Indonesia, the VOC lodge of Ayutthaya was excavated in Thailand (Ranjith Jayasena, pers. comm. 2013) and a useful overview of Sumatran sites emphasizes the implications of ceramic markers there (Miksic 2007). Excavations in Fort Zeelandia in Taiwan stress the chronological significance of Asian ceramics from the Dutch porcelain trade of the early 17th century (Liu et al. 2007). The analysis of finds at the VOC fort at Katuwana in Sri Lanka leads to an ingenious suggestion that the paucity of porcelain there is a reflection of its distance from the main trade routes, as opposed to the preponderance of Sri Lankan earthenware that marks the presence of what will later be known as a Eurasian culture there (Jayasena 2006). Similarly, a less detailed argument is made for material excavated on the Banda islands that seems to document the spread of Islam as well as the Dutch conquest there (Lape 2000).

Historical Archaeology at the Cape

A brief review of the development of historical archaeology at the Cape will help to contextualize the present work (Abrahams 1985; Hall and Markell 1993). In the late 1970s and early 1980s, research was based in three institutions. The Department of Archaeology at the University of Cape Town developed an interest in early Cape architecture and archival records (Hall and Markell 1993: 3) and initiated excavations at VOC sites, including an outpost called 'Paradise' on the slopes above the University (Smith 1980). The South African Cultural History Museum undertook a series of small rescue excavations in the city of Cape Town (Abrahams 1982, 1985) and helped amass a major collection at the Golden Acre site of the original VOC jetty and reservoir (Abrahams 1985:43; Avery 1979). Abrahams also excavated under contract at the Castle and the adjoining Grand Parade, where she used a series of overlaying maps to help locate the wall of the original VOC Fort of Good Hope (Abrahams 1985: 56-61). Twenty miles away, the Stellenbosch Museum initiated extensive excavations of its early colonial houses (Abrahams 1985: 45-47; Vos 1980, 1993), as well as an old VOC post named De Posthuys on the shores of False Bay (Vos 1993: 47-48).

After 1984, a large, vibrant program in historical archaeology was based at the Department of Archaeology at the University of Cape Town, encouraged and enlightened by repeated visits by the then Berkeley-based archaeologist Jim Deetz. Although he was particularly interested in the archaeology and material culture of the 19th century British settlement on the eastern frontier, Deetz drew on his extensive bi-coastal experience in the States in encouraging Cape scholars to view the material evidence of colonialism in its wider, global perspective (Deetz 1993, 1996). A series of major excavations of VOC sites was based at the University of Cape Town, including that of the outpost of Oudepost I at Saldanha Bay (Schrire 1988, 1995), the outpost at Paradise (Hall et al. 1993), and the farm Vergelegen near Stellenbosch (Markell 1993, Markell et al. 1995; Sealy et al. 1995). In addition, a start was made on the systematic retrieval and analysis of shipwreck cargoes in Table Bay (Werz 1990, 1993, 2004; Werz and Klose 1994). Dominant themes of the time were how to integrate archaeology, architecture, and archival sources to provide a new perspective on colonial impact, the construction of status, and the transcripts of resistance in the stratified world of the VOC (Hall and Markell 1993).

On a more practical note, Deetz, Hall, and others began to engage more aggressively in projects relating to cultural resource management. In 1987, two important divisions were established within the Archaeology Department at the University of Cape Town. The first was the Archaeology Contracts Office (ACO), whose mandate was "…to assess and mitigate the destruction of heritage sites during construction and development projects…" (http://web.uct.ac.za/depts/age/aco.htm); and the second was the Historical Archaeology Research Group (HARG), whose job it was to promote interest in historical archaeology through contacts, a resource center, and a laboratory (http://web.uct.ac.za/depts/age/harg.htm; see also Swanepoel 2009: 569). Their initial major project arose from an architectural restoration of the VOC Castle of Good Hope and its adjacent Moat. David Halkett served as the chief field officer at the Castle under the direction of Martin Hall, who in turn analyzed the stratigraphic features and invented the protocols used to contextualize and interpret the finds.

In 1999, shortly after hosting the World Archaeological Congress in Cape Town and assuming its presidency, Hall moved out of the Archaeology Department and into a senior administrative position that culminated in his becoming Deputy Vice Chancellor in 2002. He invited me to take over the Castle collections in full and to publish them in the detail they deserved. I accepted his offer with alacrity. It offered me an opportunity to study the Castle collections alongside the published material from other sites. The Castle of Good Hope was the headquarters of the VOC from around 1666 until 1795, constructed on the beach at Table Bay to house the garrison and all its attendant personnel ranging from the Governor to slaves. Archaeological comparisons might be made with collections from a ships' provisioning outpost at Oudepost I, located 120 km north of the Castle (Schrire 1995), as well as with collections from colonial farms (Markell et al.1995). It meant that we might invent and consolidate a number of technical analyses of artifacts including coarse earthenwares (Jordan 2000a, 2000b; Jordan et al. 1999; Jordan and Schrire 2002), Asian ceramics (Klose 1997, 2001), clay tobacco pipes (Schrire et al. 1990), coins (Schrire and Meltzer 1992), stone artifacts (Schrire and Deacon 1989), and fauna (Cruz-Uribe and Schrire 1991; Heinrich, 2010). The broader social and material contexts of these findings included the nature of colonialism at the Cape (Schrire 1995, 2009), subaltern voices of slavery (Hall 1992, 1999, 2000; Hall et al. 1990), and class (Malan 1993, 2007).

Today, historical archaeology still has a presence at the University of Cape Town in the contractual activities of the ACO, the TANAP (Towards a New Age of Partnership in Dutch East India Company Archives and Research) archival project (http://www.tanap.net/; see also Malan 2007), and the production of a major handbook of 17th to 20th century Cape ceramics (Klose 2007). But without a permanent faculty member dedicated to VOC research, the pursuit of new challenges has waned. Jane Klose continues her invaluable analysis of Asian ceramics, Antonia Malan, her meticulous organization of major international projects relating to the records of the VOC, and Yvonne Brink her analysis of VOC architecture (2008). Historians like Nigel Worden try gamely to incorporate historical archaeology into their VOC research, but although such efforts go back over 40 years (Inskeep 1969), archaeology has never become central to their concerns. Worden's misnaming of Oudepost I (the most published VOC archaeological site in South Africa) as 'Oudekraal' (a former grazing post of a rich colonial family, situated behind Cape Town) speaks incontrovertibly to this point (Worden 2007a: 8). In contrast to this, beyond the Cape, the discipline of historical archaeology has broadened to encompass European interactions with indigenous societies ranging from hunter-gatherer artists to Iron Age kingdoms (Swanepoel 2009: 568-71). Today, an increasing emphasis on heritage carries the discipline a long way from the narrow prescriptions of the former Apartheid era. This new and burgeoning multicultural view of tangible and intangible heritage seeks to reshape a sense of community identity in which the VOC is one of many strands contributing to a new sense of the South African past. The shift in focus is to be applauded. It brings South African concerns into a world forum where hot political issues of the past can be openly aired and resolved.

Conclusion

The archaeological sites under review in this book date back to the heyday of the VOC, from the late 17th to early 18th century (Israel 1995: 936). True, some artifacts jettisoned by ships ended up as garbage, but the vast majority of stuff excavated at VOC sites was deliberately selected by the Company to provision this, their southernmost outpost at the Cape. Given the geographical range of the VOC trading empire, we find a mixture of Asian, or *Indische,* and European goods that reveal the provisioning strategies of the Company as a whole. We have the archival lists of goods bought, sold, stored, and shipped by the VOC, but they do not specify the actual objects. Our work reifies and specifies things like pots, gunflints, and dishes by revealing their source, uses, and significations in the Cape of their time. They help reveal how the VOC created market tastes and demands by dictating what was traded at the source, what people could buy at the market, and ultimately what they liked, what they owned, and how it all converged to create the material stamp and identity of the Cape settlement. The VOC dictated the material stamp of wealth, status, and class at the Cape, and we seek to flesh it out from a spicule of glass, a sherd of porcelain, a blunted gunflint, and a discarded buckle in order to say something new and fresh about the emerging capitalist world of the 17th and 18th centuries.

This book presents a series of detailed, catalogued descriptions of the VOC collections excavated in three locales in the Castle, one at the VOC outpost at Oudepost I and one locale on the farm at Elsenburg. The chapters that follow include descriptions, analyses, and tables together with illustrated catalogs of finds in the accompanying CD. It should be noted that the catalogs constitute an indispensable part of the artifact analyses and therefore, where needed, their citations appear in the references at the end of each chapter. The order in which the chapters appear was devised for ease of reading in that each one sets the stage for the next. Chapter 2 contextualizes the collections with the first detailed description of the sites and their formation processes, as revealed by extensive excavations. This is followed in Chapter 3 by the analysis of fauna that links site formation with the operation of a colonial meat industry. Chapters 4 to 7 are concerned with ceramics, starting with the predominant Asian collections and followed by the European wares, including coarse earthenware, stoneware, and tin-glazed, refined, and industrial earthenwares. Next comes the analysis of glass in

Chapter 8, followed by objects of personal adornment in Chapter 9 and metal remains in Chapter 10, including bullet molds and shot, which leads to Chapter 11, which is on gunflints. The final chapter amalgamates all the information into a forward-looking view of the VOC at the Cape.

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Notes

1. A *genizah* is a storage space in a Jewish synagogue where Hebrew books and papers containing Holy names and religious matters may be kept for as long as necessary before proper burial.

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CHAPTER 2

History, Architecture, and Archaeology of Selected VOC Sites at the Cape

Carmel Schrire

Preface

This book is a series of studies of the material culture of the Cape settlement during the period of the Dutch East India Company (VOC) between 1652 and 1795. It focuses on five main sites that together constitute the core of the archaeological record of the VOC at the Cape. Three come from the Castle of Good Hope in the heart of modern Cape Town, one from Oudepost I, a small VOC outpost lying about 120 km north of the Cape settlement on the shores of Saldanha Bay, and the last from Elsenburg, a VOC-era farm 50 km east of the Castle (Schrire 2010; see Figure 2.1). The salient features of the sites are described in this chapter with extra details in Appendices A, B, C, D.

This book is aimed at both a general audience interested in the history and archaeology of the colonial Cape and specialists working on the material culture of the Early Modern era and the Age of Mercantile Capitalism. Its main purpose is to link critical analyses of contexts with extensive presentations of finds. In addition, extensive, illustrated catalogs are offered for comparison with other collections that form the building blocks of our understanding of global trade, provisioning and consumption in colonial times. Color images of figures appear in the enclosed CD.

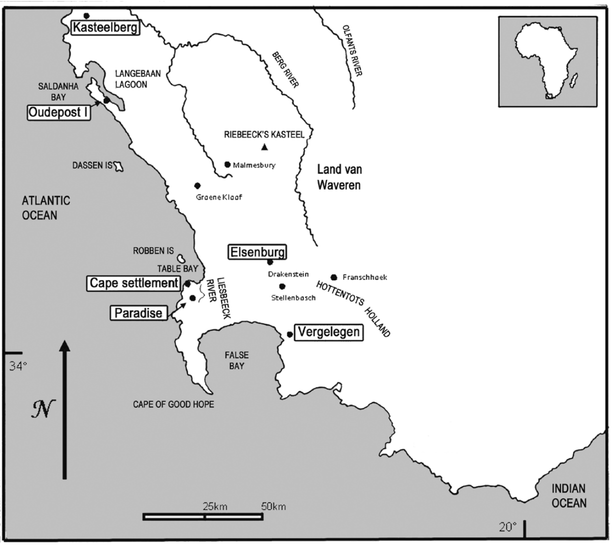

Kasteelberg
LANGEBAAN LAGOON
SALDANHA BAY
Oudepost I
BERG RIVER
OLFANTS RIVER
RIEBEECK'S KASTEEL
Malmesbury
DASSEN IS
Land van Waveren
GroeneKloof
ATLANTIC OCEAN
ROBBEN IS
Elsenburg
TABLE BAY
Drakenstein
Franschhoek
Cape settlement
LIESBEECK RIVER
Stellenbosch
HOTTENTOTS HOLLAND
Paradise
Vergelegen
FALSE BAY
34°
N
CAPE OF GOOD HOPE
INDIAN OCEAN
25km
50km
20°

Figure 2.1. Historic sites in the Western Cape, South Africa. (After Heinrich 2010:3)

Castle of Good Hope

Castle: Introduction

This is the first systematic account of excavations made over the past 40 years at the Castle of Good Hope (henceforth the 'Castle'). Most of the work was done between 1988-1992 by the Archaeology Contracts Office (ACO) at the University of Cape Town, until 1990 under the supervision of Professor Martin Hall of the Archaeology Department at the University of Cape Town, and from 1991 on, under David Halkett. The original field records are lodged in the Department of Archaeology at the University of Cape Town within the facility known as HARG (Historical Archaeology Research Group) (http://web.uct.ac.za/depts/age/harg.htm). They include field notes, site reports and preliminary analyses, drafts of published and unpublished papers, photographic records, and correspondence.

Carmel Schrire, "History, Architecture, and Archaeology of Selected VOC Sites at the Cape" in *Historical Archaeology in South Africa: Material Culture of the Dutch East India Company at the Cape,* pp. 29–64. © 2014 Left Coast Press, Inc. All rights reserved.

Specialized publications to date include an account of the history and archaeology of Castle and moat construction (Fitchett 1998; Hall et al. 1990) and descriptions of collections from the Moat (M90) and the Old Granary (F2) (Hall, 1992b, 1999; Jordan and Schrire 2002; Klose 2000). Unpublished analyses include a major ceramic catalog (Klose 2007) as well as four dissertations on architectural history (Fitchett 1996), colonial earthenwares (Jordan 2000a), ceramics (Klose 1997), and fauna (Heinrich, 2010).

The summary of Castle history and archaeology in this chapter provides a context for the detailed analyses of excavated collections that follow. In drafting it, I must record my debt of gratitude to Professor Martin Hall for granting me full access to the records and to David Halkett, whose modest and intuitive recollections of work at the Castle form the core of my understanding of their archaeological work there.

Castle: Socio-political history

The Castle was not the first military defensive structure at the Cape. That honor goes to the Fort de Goede Hoop, which was built in 1652 immediately upon arrival of the first VOC settlement there (Figures 2.2, 2.3; see Ras 1959: 33; Brommer et al. 2009: Sheets 70 below, 75, 76 below, 77[1]). It resembled numerous other Dutch fortifications strung out along the route of the Dutch maritime empire, including the Dutch West India Company Fort Orange, in Albany, New York (Huey 1991), Fort Amsterdam in the Netherlands Antilles, and VOC forts in Mauritius and Ceylon (Floore 1998; Floore and Jayasena 2010; Jayasena and Floore 2010). Their designs followed the Old Dutch System (*Oudnederlands Stelsel*) of military engineering, which was rooted in the Renaissance and created by theoretician Simon Stevin and builder Adriaan Anthonisz to minimize the effect of cannons on high walls through a system of complex bastions, banks, and ditches (Floore 1998: 52; Ploeger 1968; Schukking 1941). It was succeeded by the New System (*Nieuw Nederlands Stelsel*) with its principles of obtuse-angled structures.

The Fort de Goede Hoop stood on the dunes above the shore, surrounded by gullies of seasonal streams that poured down the slopes of the surrounding mountains (Figure 2.2; see also Brommer et al. 2009: Sheets 75, 77; Chapter 12, this volume). It had a square court surrounded by curtain walls

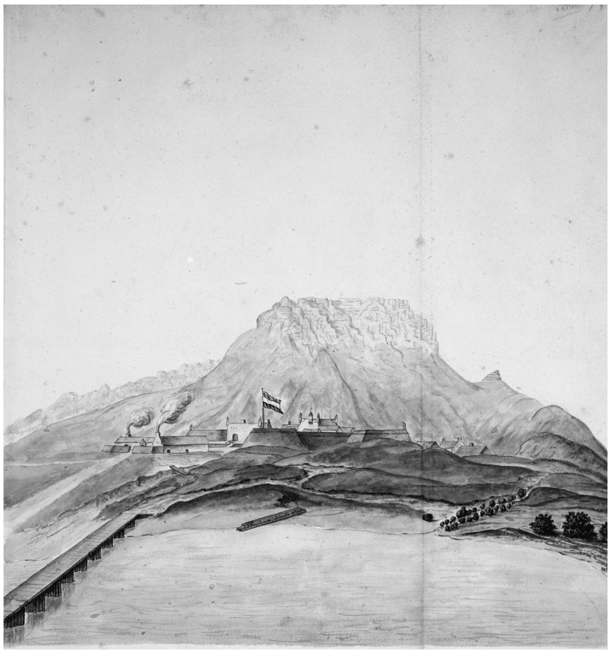
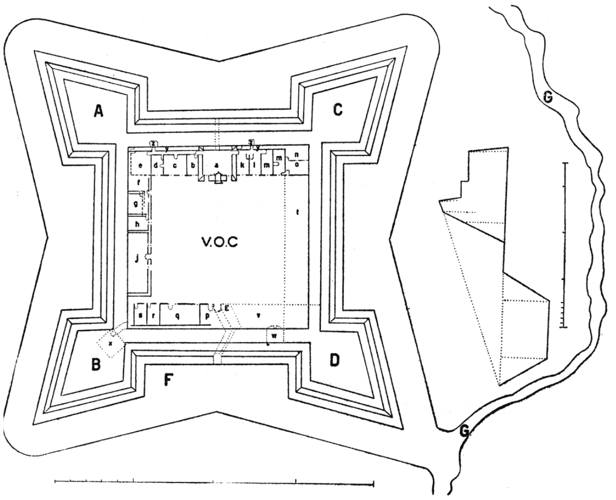


Figure 2.2. View of the fort and Table Mountain. Inscribed *"A Beeckman, ad vivium pinxit"* [1657-1658]. Watercolor on paper, 55x45 cm. See Brommer et al. 2009: Sheet 77. (Courtesy Österreichische Nationalbibliothek/Austrian National Library, Vienna)

THE FORT OF GOOD HOPE IN 1653,
WITH SECTION OF MOAT AND RAMPART.
Chart 814, State Archives, The Hague (Key translated and symbols transcribed).



KEY:

V.O.C.	THE USUAL SIGN OF THE COMPANY: VEREENIGHDE OOST-INDISCHE COMPAGNIE (UNITED EAST INDIA COMPANY).
A, B, C AND D	ARE THE BASTIONS DROMMEDARIS, WALVIS, OLIPHANT AND REIJGER RESPECTIVELY.
E	ASCENT TO THE RAMPART.
F	MOAT.
G	FRESH RIVER.
a	BRICK HOUSE, FLAT ON TOP, WITH A HALL AND A CELLAR UNDERNEATH.
b	COMMANDER'S OFFICE.
c	COMMANDER'S BEDROOM.
d	COMMANDER'S NURSERY.
e	COUNCIL CHAMBER AND DINING-ROOM, WHERE THE RICE IS STORED FOR THE TIME BEING.
f	VACANT SPACE.
g	KITCHEN.
h	PANTRY.
j	MAGAZINE AND STORE.
k	ASSISTANT'S OFFICE.
l	ASSISTANT'S BEDROOM.
m	SICK-COMFORTER'S HOUSE. (a—m not yet completed).
n	COMMON KITCHEN.
o	VACANT SPACE.
p	MAIN WATCH.
q	GUARDROOM.
r	SURGEON'S ROOM.
s	GARDENER'S ROOM.
t	PROJECTED STORE.
v	PROJECTED SAILORS' QUARTERS.
w	THE PRESENT POWDER MAGAZINE—LATER TO BE CONVERTED INTO A PRISON.
x	PROJECT FOR A STRONG AND PERMANENT POWDER MAGAZINE.
y	PASSAGE BETWEEN THE HOUSE AND THE RAMPART.
z	TWO PRIVIES UNDER THE RAMPART.

Figure 2.3. *(right)* The Fort of Good Hope in 1653, with section of moat and rampart. (Thom 1952:27, after Nationaal Archief, Den Haag: VEL 814)

and four bastions whose flanks lay at right angles to the curtain walls (Figure 2.3; see Brommer et al. 2009: Sheets 70 below, 76 below; Johnson Barker 2003: 12-15; Fitchett 1998: 132; Thom 1952: 27). It housed the garrison and Company employees, and its immediate purpose was to defend the settlers from attacks by land and sea. Completed within a year, it turned out to be unsatisfactory on all counts: the earthen breastworks collapsed under torrential rain, the thatched structures caught fire, and the enclosure proved too small to shelter a growing militia as well as the Company's goods and stock. By 1662 it was clear that a bigger, more resilient stone fort was needed (Böeseken 1973: 301).

When the Anglo-Dutch War of 1664-67 broke out it became imperative to consolidate and strengthen the far-flung holdings of the Dutch Republic. In 1665 orders were received to build a five-bastioned stone castle *(Roijale Steene-Fortresse*) at the Cape (Böeseken 1957: 332-333, C.2, pp. 90-93; Fitchett 1996: 126; Fitchett 1998: 135). Construction began in 1665 on the beach just east of the Fort at Table Bay (see Brommer et al. 2009: Sheet 79) and continued through the British occupations from 1795-1803 and 1806-1910. Despite some close calls for demolition in the 19th century, it still stands today (Fransen and Cook 1980: 40; Johnson Barker 2003: 53-58; Koopmans de-Wet House 1988: 5). It remained the property of the War Department and was the center of the Western Province Command until 2001 (Johnson Barker 2003: 153). Early photographs reveal a general look of dilapidation as well as a decidedly non-military appearance of the front courtyard, with walkways hidden by large trees and a tennis court in the open plaza (Figures 2.4, 2.5). Today, newly plastered walls and immaculate paintwork are the results of prolonged architectural restoration (Figures 2.6, 2.7). The Castle currently houses several museums and is a prime destination for banquets and celebrations. Although it has presented some stunning exhibitions of objects (Olifant et al. 2004), it has yet to mount a serious educational heritage program. Seen from outside, the Castle looks like an immense tortoise squatting in the lee of the mountains, its stone carapace baking in the sun as the city spreads out and up around its feet.

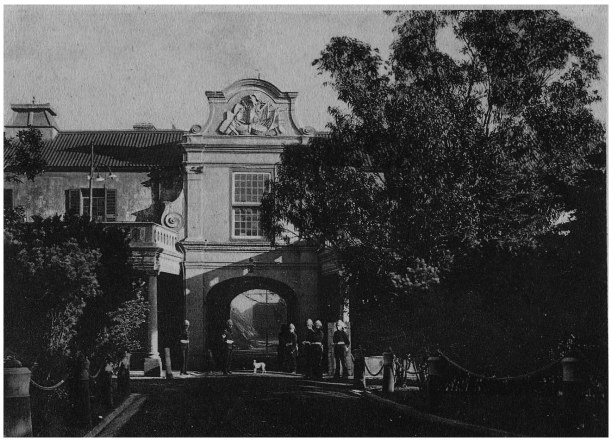


Figure 2.4. '"Inside the Gateway," Capetown-Castle'. Postcard c. 1910. Cape Town: A. Mekelburg. (Sylvia Schrire coll.)

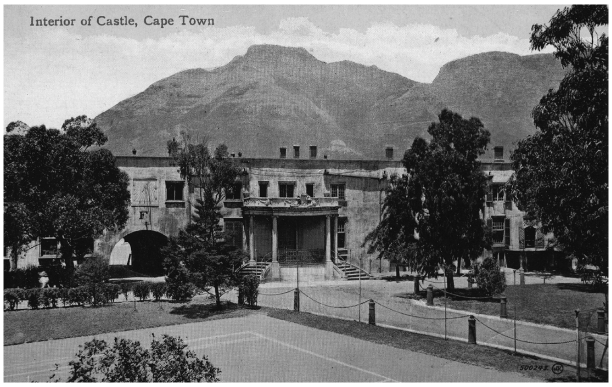


Figure 2.5. 'Interior of Castle, Cape Town'. Postcard c. 1910. (Sylvia Schrire coll.)

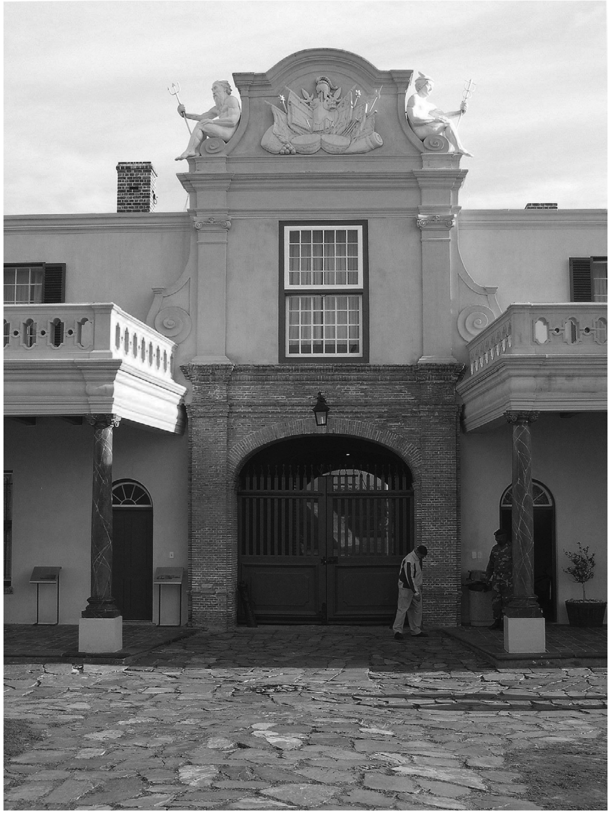


Figure 2.6. Castle entrance viewed from the front courtyard. (Photo C. Schrire, 2005)

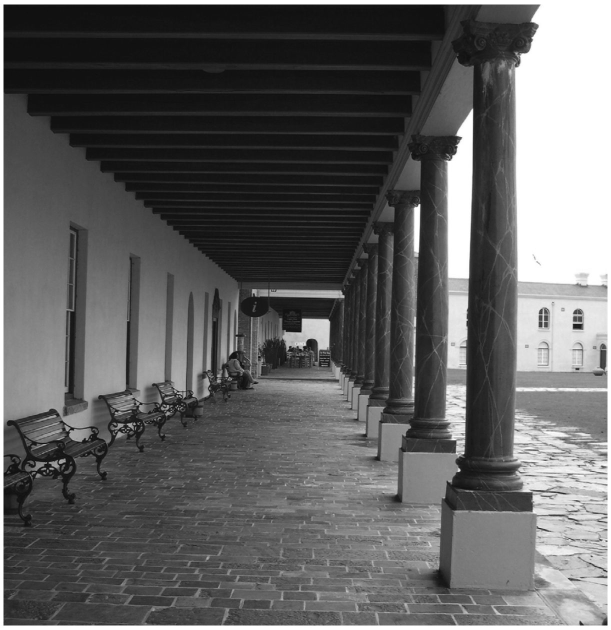


Figure 2.7. Castle, showing restored British-era colonnade inside the main entrance. (Photo C. Schrire, 2005)

Castle: Architectural history

The design of the Castle of Good Hope followed the basic principles of the *Oudnederlands Stelsel*, but instead of having four bastions like the old Fort, it followed the pentagonal form introduced in the Netherlands in the 1550s. Claims that it was actually designed by Louis XIV's engineer Sébastien de Vauban (Ploeger 1968) are dismissed as "chauvinistic" (Hall et al. 1990: 23). However, it certainly followed his principles (Ras 1959: 58), even though the actual plans were prepared by engineer Pieter Dombaer (Fitchett 1998: 136; Ras 1959: 58). Part of its design just missed conforming to the principles of the *Nieuw Nederlands Stelsel* because later plans along these lines were abandoned (Figures 2.8, 2.9, 2.10, 2.11; see also Brommer et al. 2009: Sheets 79, 80 above and below, 91 above, 95 above, 119 below, 131 above, 138-139, 144, 145; Fitchett 1998: 140; Johnson Barker 2003: 36-37).

The Castle was intended as an improvement on the Fort. Its five bastions were designed to provide a larger enclosure, shorter curtain walls, less acute-angled bastions that could house more cannons, and a more central situation within the town (Fitchett 1996: 125-126). Defensive works included a central courtyard enclosed by a main wall (*hooftwal*), surrounded in turn by a lower wall (*onderwal* or *fausse braye*) that constituted the *escarptalude* of the moat (Figure 2.12; see Brommer et al. 2009: Sheet 91 below; Hall et al. 1990: 24, Figure 2). Parts of the moat might have had an extra drain, or *cunette,* running down its center. Its outer wall formed a *contrescarptalud* on the far side. Beyond this a slope, or *glacis*, was designed to expose would-be invaders to full view.

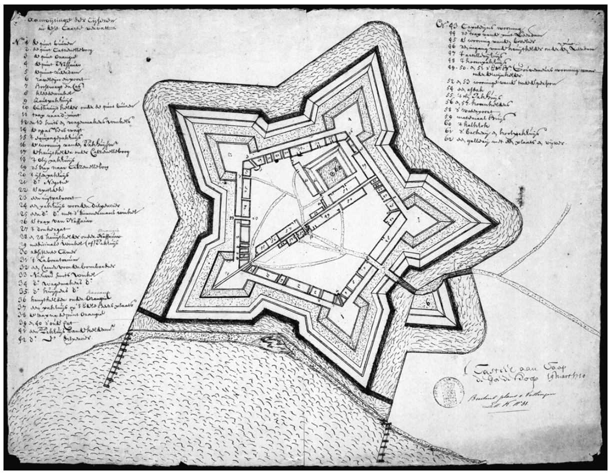


Figure 2.8. The Castle at the Cape of Good Hope. Nationaal Archief, 4. TOPO 15. 103. Drawn by the sergeant Elias van Stade(n) on instructions of Governor-General Van Hoorn, who inspected the Cape as Commissioner, 1709-10. See also Brommer et al. 2009: Sheet 80 below; Western Cape Archives and Records Service: M1/1103; Johnson Barker 2003:36-37. (Courtesy Nationaal Archief, Den Haag)

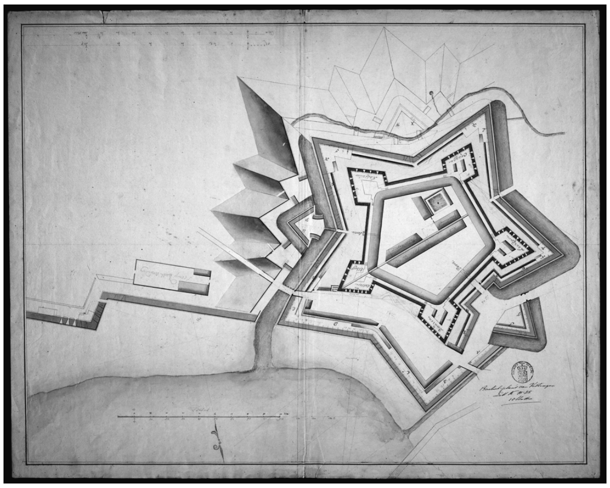


Figure 2.9. Project plan for a second outwork to the East of the Castle. Nationaal Archief, TOPO 15. 102P (Anonymous, 1786). The wet sections of the moat are colored blue and include the Ravelin and Darling Street (DSM) stretches along Leerdam and Oranje bastions, but not the Van der Stel section along Buren bastion, which must have been filled and/or dry at that date (1786). See also Brommer et al. 2009: Sheet 119 below. (Courtesy Nationaal Archief, Den Haag)

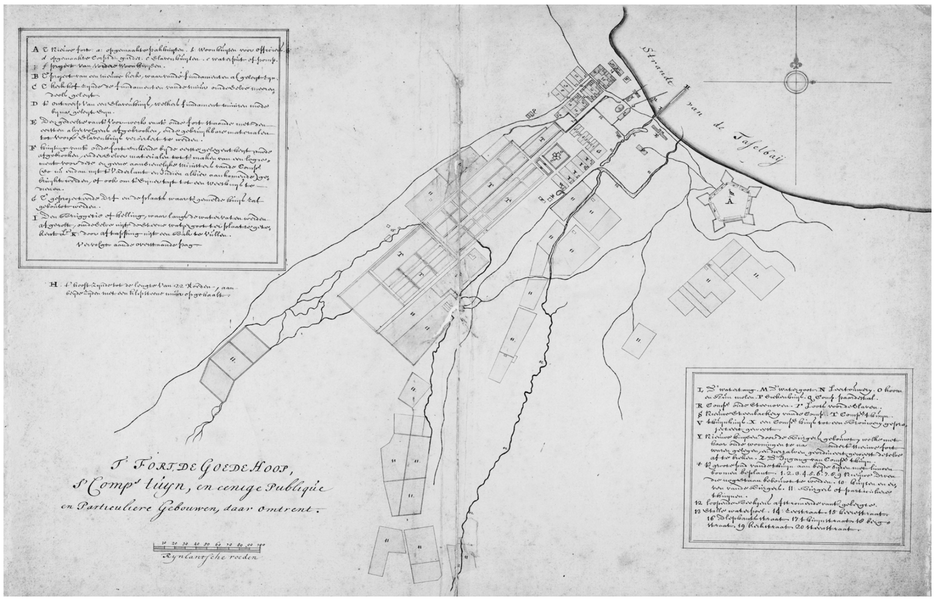
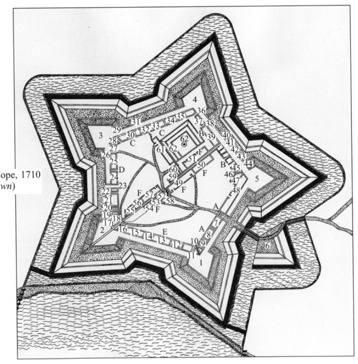
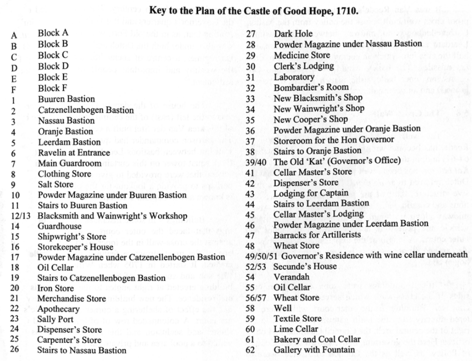

Strande van de Tafelbaaij
'T FORT DE GOEDE HOOP,
s'Comp' tuyn, en eenige Publique
en Particuliere Gebouwen, daar omtrent.
Rynlandsche roeden

Figure 2.10. The Fort of Good Hope, the Company's Garden, and some public and private buildings in the vicinity. Nationaal Archief, 4. VEL 828, Isaak de Graaf ca/c. 1700. Note the confluence of streams and the fact that neither the Kat wall nor the moat is visible even though both must have been present at that time. See also Brommer et al. 2009: Sheet 131 above. (Courtesy Nationaal Archief, Den Haag)


A
B
C
D
E
F
1
2
3
4
5

The Castle of Good Hope, 1710 (M1/1103; CA) (*Redrawn*)



Key to the Plan of the Castle of Good Hope, 1710.

A	Block A
B	Block B
C	Block C
D	Block D
E	Block E
F	Block F
1	Buuren Bastion
2	Catzenellenbogen Bastion
3	Nassau Bastion
4	Oranje Bastion
5	Leerdam Bastion
6	Ravelin at Entrance
7	Main Guardroom
8	Clothing Store
9	Salt Store
10	Powder Magazine under Buuren Bastion
11	Stairs to Buuren Bastion
12/13	Blacksmith and Wainwright's Workshop
14	Guardhouse
15	Shipwright's Store
16	Storekeeper's House
17	Powder Magazine under Catzenellenbogen Bastion
18	Oil Cellar
19	Stairs to Catzenellenbogen Bastion
20	Iron Store
21	Merchandise Store
22	Apothecary
23	Sally Port
24	Dispenser's Store
25	Carpenter's Store
26	Stairs to Nassau Bastion
27	Dark Hole
28	Powder Magazine under Nassau Bastion
29	Medicine Store
30	Clerk's Lodging
31	Laboratory
32	Bombardier's Room
33	New Blacksmith's Shop
34	New Wainwright's Shop
35	New Cooper's Shop
36	Powder Magazine under Oranje Bastion
37	Storeroom for the Hon Governor
38	Stairs to Oranje Bastion
39/40	The Old 'Kat' (Governor's Office)
41	Cellar Master's Store
42	Dispenser's Store
43	Lodging for Captain
44	Stairs to Leerdam Bastion
45	Cellar Master's Lodging
46	Powder Magazine under Leerdam Bastion
47	Barracks for Artillerists
48	Wheat Store
49/50/51	Governor's Residence with wine cellar underneath
52/53	Secunde's House
54	Verandah
55	Oil Cellar
56/57	Wheat Store
58	Well
59	Textile Store
60	Lime Cellar
61	Bakery and Coal Cellar
62	Gallery with Fountain

Figure 2.11. "The Castle of Good Hope, 1710" (Johnson Barker 2003: 36-37). Redrawn from Western Cape Archives and Records Service: M1/1103, which is shown in Brommer et al. 2009: Sheet 80 below. (Courtesy I. Greeff, Curator, Castle Military Museum, Cape Town)

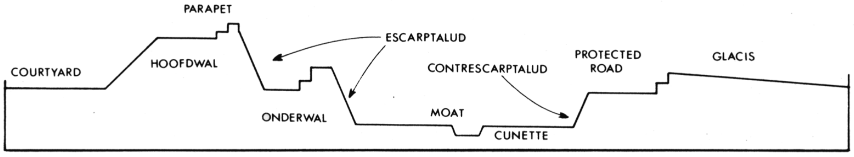

PARAPET
ESCARPTALUD
COURTYARD
HOOFDWAL
CONTRESCARPTALUD
PROTECTED ROAD
GLACIS
ONDERWAL
MOAT
CUNETTE

Figure 2.12. Diagrammatic cross-section of a moat following "The principles of fortification design according to Adriaen Metius." (Hall et. al. 1990: 24, Figure 2)

Castle: Archaeology and excavations

Archaeological excavations began in the confines and surrounds of the Castle around late 1975 as part of a massive restoration project under the auspices of the Public Works Department (Figure 2.13; see also Johnson Barker 2003: 68-79; Appendix A). Gabriël Fagan Architects contracted a series of Phase 1 and 2 archaeological investigations under the direction of Hendrik Vos of the Stellenbosch Museum in the 1970s, and Gabeba Abrahams of the Iziko South African Cultural History Museum in the early 1980s (Abrahams 1982; Abrahams 1985: 56-59; Vos 1980). Finds included several wells as well as the outlines of an early 18th century fishpond that the British transformed into the Dolphin Fountain (see Abrahams 1985: 56-59; Fransen and Cook 1980: 39; Johnson Barker 2003: 74; Mentzel 1921: 104). The most extensive archaeological work was done between 1988 and 1992 by the Archaeology Contracts Office (ACO) at the University of Cape Town, under the leadership of Professor Martin Hall and the field direction of David Halkett (Anon n.d.: see also Appendix A). They excavated a series of sites in and around the Castle in Buren (also spelled 'Buuren') bastion, Blocks A-E in the inner curtain, Block F in the Kat wall, a well in the Kat wall, the Darling St Moat, the Van der Stel Moat, and the Ravelin Moat (Figure 2.13; see Hall 1988, 1989, 1992a, 1992b, n.d. a, n.d. b, n.d. c, n.d. d; Hall et al. 1990; Jordan 2000a, 2000b; Jordan et al. 1999; Jordan and Schrire 2002; Klose 1993, 1997, 2000, 2007; Schrire and Jeppson 1987).

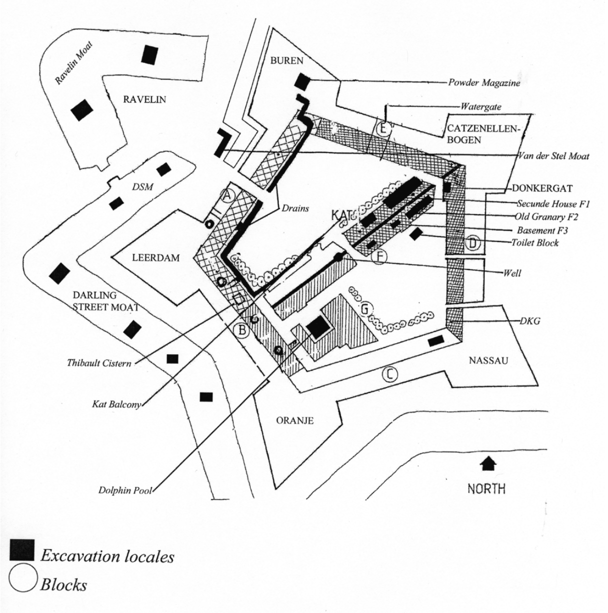


Figure 2.13. Diagram of Castle reconstruction work, showing locales of archaeological interest. (Fagan 1988; Halkett 2002 pers. comm.)

Castle: Site formation processes

Four general observations are helpful in interpreting the context and taphonomy of the archaeological residues excavated in the Castle:

1. Stone Age residues found in Castle collections do not, in and of themselves, signal the occupation of the Castle by indigenous people or interactions between indigenous and colonial groups.

The Castle was not built on archaeologically sterile ground. It was constructed on a sandy beach atop the occupational debris left by Stone Age people who had lived in this region for at least 600,000 years (Klein et al. 2007). Their presumed descendants—San hunter-gatherers and Khoekhoe pastoral foragers—greeted the first European mariners after 1488, when they first rounded the Cape on their way to the Indies (Raven-Hart 1967:1-8). Whatever their particular clan or tribal names may have been at that time, they were collectively transformed into 'Hottentots' and remained so in the early travel literature and colonial records of the VOC at the Cape (Kennedy 1975: K84, K85; see Figure 2.14).

2. The Castle was built on ill-drained ground, subject to periodic flooding by high tides and seasonal streams.

A castle is a walled structure or a shell with strategically placed towers and bastions that need to be filled with earth and stone to elevate and drain them. Construction and maintenance involved massive amounts of manual labor, and the Castle of Good Hope was no exception. It was situated just above the beach, on deeply fissured ground within easy reach of the tide, at the convergence of several mountain streams (Figures 2.2, 2.10; see Chapter 12; see also Brommer et al. 2009: Sheet 77, Sheet 131 above; Hall et al. 1990: 27-29). This presented problems. Some were easily remedied, as in the case of the original entrance that faced the sea. Called 'Watergate,' it lay wide open to passing ships, but what was worse, it flooded at high tide and was rendered impassable by drifting sand (Fitchett 1996: 143; Ras 1959: 83-84). A simple solution was achieved in 1682, namely, to shut it off and build a new entrance on the northwest side facing the town (Figure 2.15; see also Böeseken 1961: 77-79, C.5, pp. 203-207; Fitchett 1996: 143-144; Fitchett 1998: 139).

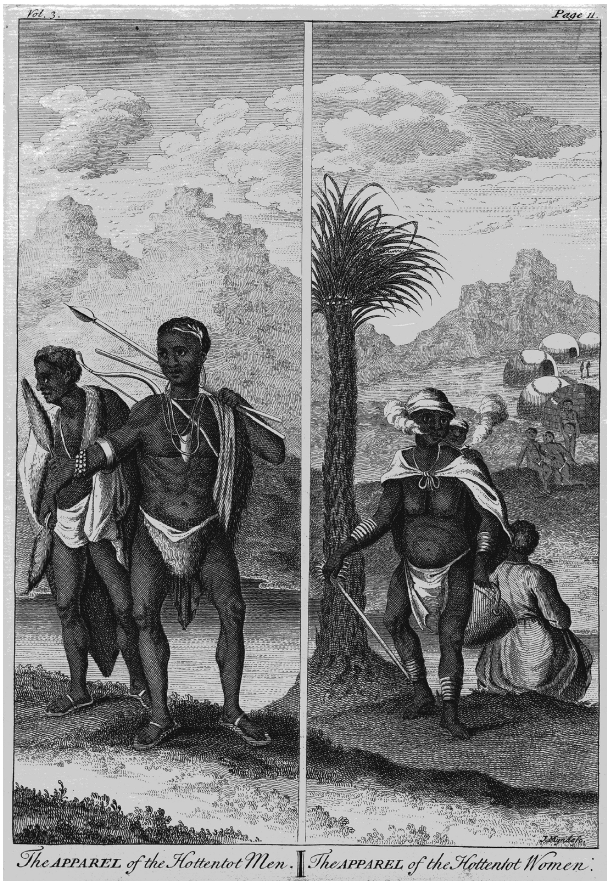

Vol. 3.
Page 11.
J. Mynde sc.
The APPAREL of the Hottentot Men.
The APPAREL of the Hottentot Women.

Figure 2.14. Apparel of Hottentot men and women. (Astley 1746 after Kolb (Kolben) 1731a; Kennedy 1975: K84, K85). (C. Schrire coll.)

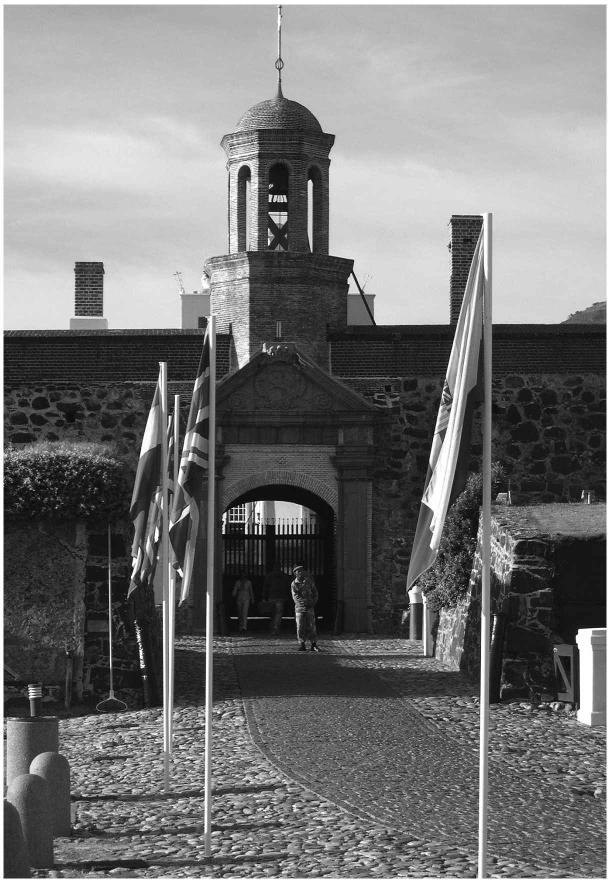


Figure 2.15. Castle gateway. (Photo C. Schrire, 2005)

Other water and drainage problems were less tractable and some even continue to this day. For example, the western bastion Leerdam was completed in 1671. The gunpowder cellar beneath it collapsed two years later probably due to a combination of weak bricks and an unstable fill (Hall et al. 1990: 27). Fears for its stability were voiced in 1676 (Ras 1959: 72) and three years later the bastion itself partially collapsed due to infiltration from the adjacent moat (Hall et al. 1990: 27). The Council now resolved to build a 12 Rh. ft[2] (3.7m) berm (*fausse braye*), or *onderwal*, all around the Castle to keep the bastions dry and to deepen the moat itself with a 60 Rh. ft (18.6m) wide channel (Böeseken 1959: 294, C.4, pp. 56-58; Fitchett 1996: 140-141, Fitchett 1998: 138; Hall et al. 1990: 29-30). Although Leerdam was rebuilt by 1680, its problems continued (Böeseken 1961:5, C.4, pp. 208-211 and C.5, pp. 1-34). The trouble was that a deep, functioning moat was incompatible with stable walls. In 1681, the moat was only 2-3 Rh. ft deep (0.6-0.9 m) and although this was sufficient to fill it with seawater on the beach side, the landward section, which was fed by streams, generally stayed dry. Instead of digging deeper, the VOC widened the moat to 150 Rh. ft (46.5 m) (Böeseken 1961: 5; Fitchett 1996: 142-143; Fitchett 1998: 138; Hall et al. 1990: 30). In 1703, the resolve to deepen the moat was reiterated (Fitchett 1996:146; Hall et al, 1990: 31; Ras 1959: 87) but this did not eventuate, and efforts petered out and stopped in 1710 (Fitchett 1996: 147; Kolbe 1727 Vol. II: 432).

Other drainage problems continued well into the British occupation. In 1799, four years after the VOC ceded the Cape, torrential rain, possibly emanating from a waterspout over Table Mountain, flooded the dungeons and stood three foot deep in the courtyards (Barnard 1999: 176-178). A similar catastrophe was recalled 50 years earlier when 50-60 slaves were needed to clean up the mess in the courtyards (ibid.: 177). Drains, moats, ditches, and cisterns were continually installed by the architect Thibault, but despite his best efforts, water remains the prime motivator of architectural reconstruction projects and archaeological work at the Castle, and specifically on the Leerdam bastion up to the present day (Figure 2.16; *Weekend Argus* 6-17-2011).

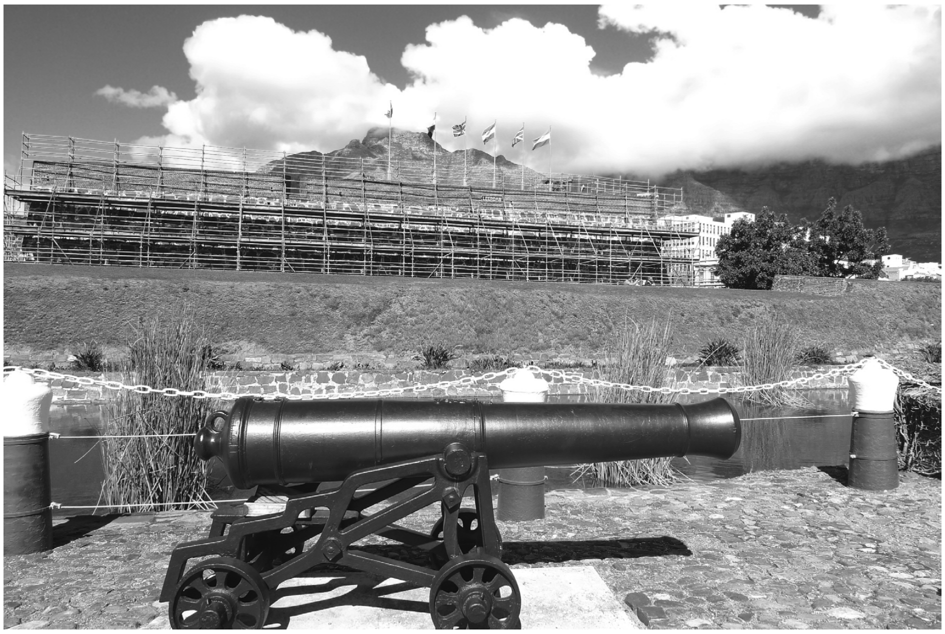


Figure 2.16. Leerdam bastion, still unstable and under repair almost 340 years after it first collapsed in 1673. Note the reconstructed moat at its foot. (Photo C. Schrire, 2011)

3. Colonial residues including rubble, masonry, tiles, old timbers, bricks, mortar, bones, and artifacts have been accumulating in and around the Castle for the past 350 years. They were dumped in the sea, the moat, and seasonal gullies and re-deposited as secondary fills to help raise the level of floors in poorly drained basements, vaulted chambers, and storage sheds.

Castle construction has gone on for the past 350 years. Although it was not officially occupied until 1674 when the demolition of the old fort began (Fitchett 1998: 137; Böeseken 1959: 117-118, C.3, pp. 1-3), the area was first cleared in 1665 and the foundation stone was laid somewhere under the bastion Leerdam the following year (Johnson Barker 2003: 25-26; Fitchett 1996: 126). The earliest Castle residues probably emanated from builders who were housed in a large shed, or *boerehuys,* within its proposed walls (Johnson Barker 2003: 27; Ras 1959: 60). Building materials were trundled in on ox wagons and wooden wheelbarrows, and when these broke, in ballast baskets (Leibbrandt 1896a: 325). Rock walls were fashioned from Malmesbury hornsfels that was blasted out in nearby quarries or on Robben Island and then shipped or loaded into ox wagons (Raven-Hart 1971: 189-190; Leibbrandt 1901: 65-66). Plaster was made by burning shells and calcrete for lime (Hall et al. 1990: 25; Leibbrandt 1902: 169, 171; Ras 1959: 66). Although some Dutch bricks, or *klinkers*, arrived as ballast off ships, most bricks were made in nearby yards (Böeseken 1957: 338-339, C.2, pp. 113-115; Hall et al. 1990: 25-26). Constant recycling went on as old buildings were demolished and then cannibalized, starting with the old fort and continuing as Castle structures became dilapidated (Fitchett 1996: 156, 165). For instance, in 1676, the old Governor's residence outside the Castle was demolished and its "…woodwork, tiles and bricks…salvaged for use on the buildings still to be erected in the Castle" (Fitchett 1996: 155). Recycling was ordered in 1705 when buildings in the inner court, including the tile-roofed bakery, were demolished and rebuilt with flat roofs (Fitchett 1996: 165; Leibbrandt 1896b: 79).

4. Archaeological residues in the Castle emanated from a wide spectrum of activities by people eating, sleeping, and working in the Castle.

Castle residues were deposited from the moment the first shovel cut the first foundation trench in 1665. The buildings were first occupied in 1674 by the garrison and then in 1680 by the Commander and Governor and his advisory bodies, including the Council of Policy, the Orphan Chamber, and the church (Dooling 1992: 6; Dooling 1994: 10).

Each of the five bastions housed its own garrison, kitchens, magazine, store rooms, and specialized production centers like smithies and bakeries. In addition to the Company servants who lived and worked there, the Castle was also home to freeburghers and slaves, both Company and private, and a billet for visitors traveling between Europe and the East Indies (see Dooling, 1992: 7-10, 38-46). Khoekhoe pastoral-foragers also visited the Castle, although there is no record of them living within its walls for any period of time. Archaeological residues in the Castle emanated from a wide variety of resident specialists including bakers, blacksmiths, carpenters, cooks, coopers, coppersmiths, goldsmiths, glaziers, gunsmiths, gunstock makers, joiners, locksmiths, tailors, tinkers, wheelwrights, and wagon-makers (Mentzel 1921: 105-06). Numerous kitchens were located in the cellars of the Governor, his Secunde, and the captain of the military forces (Mentzel 1921: 105) as well as in the cellars of each bastion and underneath the ceremonial offices in Block B, and they in turn generated garbage that included charcoal and ash from the stoves, bones from food, and broken pipes, bottles, and ceramics from everyday use. Although most goods were kept in warehouses on the beach alongside the slaughterhouse (Mentzel 1921:107-108, 142), Company storehouses were also present inside the Castle, and periodic inspections of holdings consigned outmoded *materiél* to the general residues (see Figures 2.8, 2.11).

The Castle walls drew a wide variety of folk into their embrace. "Nowhere else," writes Wayne Dooling "…did slaves, soldiers, Company officials, sailors, free blacks and possibly Khoi live in such close proximity as in the Castle…nowhere else…was the shared poverty of soldiers and slaves as pronounced as in the barracks of the Castle bastions.… The Castle thus occupies a special place in the history of Cape Town… where the seeds of a variety of social relationships of significance for the Cape as a whole, were sown." (1992: 46). Historical records include legal and administrative details as well as a famous account of daily life around 1740 (Mentzel 1921, 1944). Over the past decade the emphasis of scholarly and popular attention has shifted from architectural history (Fransen and Cook 1980; Fitchett 1996; Ras 1959) and the élite occupants of the Castle (Picard 1972) to a deeper exploration of social class and inequality. A new, rich archive has appeared with studies of the lower echelons of VOC society, namely, the soldiers, craftsmen, traders, prisoners, laborers, slaves, and convicts (Groenewald 2007; Hall 1999; Jordan and Schrire 2002; Newton-King 2003; Penn 2005, 2007; Worden 2007).

Castle: Selected sites

In 2002, Martin Hall handed over the entire archive of Castle research to me for analysis and publication. It included a large number of floppy discs and printed files (Halkett 1988a, 1988b, 1988c, 1989, 1991; Hall 1988, 1989, 1992a, n.d. a, n.d. b, n.d. c, n.d. d). None of the work that follows could have been adequately addressed had all of the computer records not been printed out, because nothing could be retrieved from the discs using any computer at the University of Cape Town, the Iziko South Africa Museum, or Rutgers. The field notebooks were all present, but apart from two diagrammatic sections of the Moat (Figure 2.17a, b), the only drawings available were rough sketches in the field notes or diagrams made from memory (Figures 2.18. 2.19, 2.20, 2.21, and 2.22). Where the photographic record was concerned, most of the color slides were there and those that had been lent out for lectures could be retrieved, but unfortunately, the black and white photographic records remain missing. These losses came as a complete surprise to both Hall and Halkett. They illustrate the intrinsic perils of curation and the losses that inevitably happen when funding falters, as it did in 1990, when leadership roles shift, as happened at the Archaeology Contracts Office in 1991, or when a major player leaves the team, as Hall did in 1997.

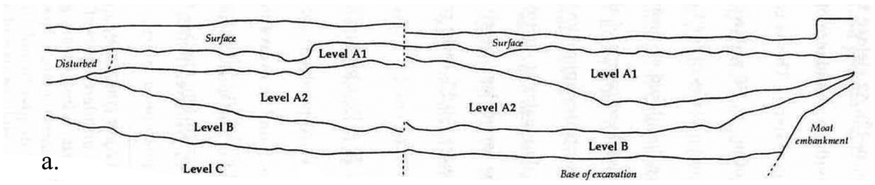
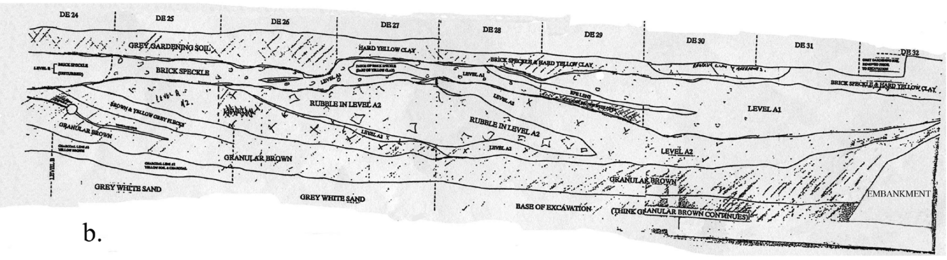

Surface
Level A1
Surface
Disturbed
Level A1
Level A2
Level A2
Level B
Moat
embankment
Level B
a.
Level C
Base of excavation

Figure 2.17.

a. Diagrammatic section of levels in Van der Stel Moat. (Jordan 2000a:126)


DE 24
DE 25
DE 26
DE 27
DE 28
DE 29
DE 30
DE 31
DE 32
GREY GARDENING SOIL
HARD YELLOW CLAY
BRICK SPECKLE & HARD YELLOW CLAY
BRICK SPECKLE
LEVEL A1
LEVEL A1
BRICK SPECKLE & HARD YELLOW CLAY
RUBBLE IN LEVEL A2
BROWN & YELLOW GREY FLECKS
LEVEL A2
RUBBLE IN LEVEL A2
LEVEL A1
GRANULAR BROWN
LEVEL A2
LEVEL A2
LEVEL A2
GRANULAR BROWN
LEVEL B
GREY WHITE SAND
GREY WHITE SAND
GRANULAR BROWN
EMBANKMENT
BASE OF EXCAVATION
(THINK GRANULAR BROWN CONTINUES)
b.

b. The only redrawn section present of the Van der Stel Moat, running south to north along the west wall of the excavation, from DE 24 to DE 32. (Archaeology Contracts Office, University of Cape Town)

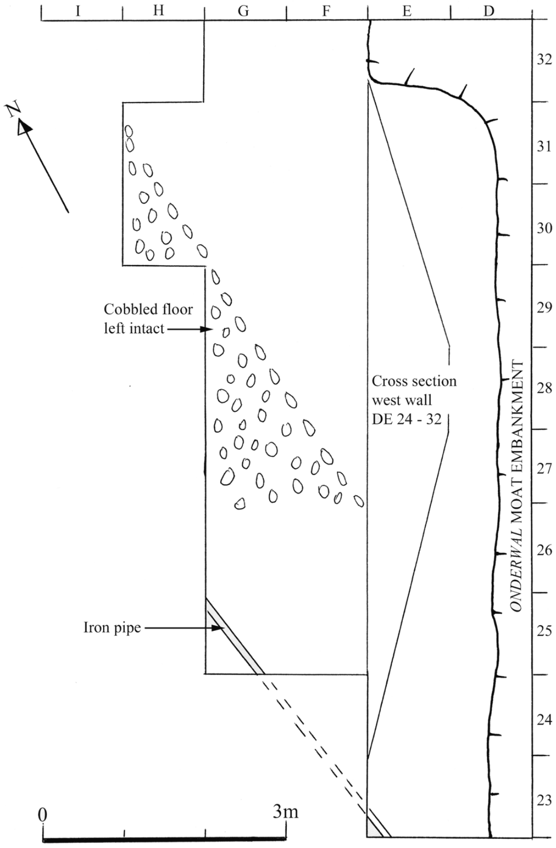

I
H
G
F
E
D
32
31
30
29
28
27
26
25
24
23
N
Cobbled floor left intact
Iron pipe
Cross section west wall DE 24 - 32
ONDERWAL MOAT EMBANKMENT
0
3m

Figure 2.18. Reconstructed grid of the excavation in the Van der Stel Moat (M90). (After Halkett 1990:51)

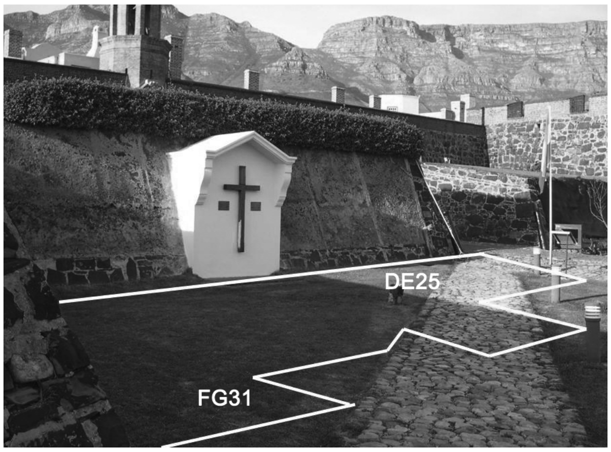


Figure 2.19. Outline of excavated areas in the Van der Stel Moat, including main trench and test pits. (Heinrich 2010:88, Figure 3.5.)

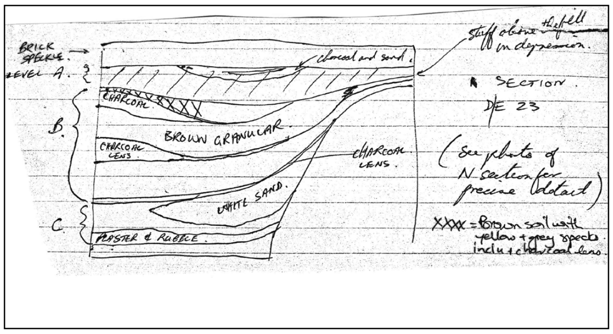

BRICK SPECKLE.
LEVEL A.
B.
C.
charcoal and sand.
CHARCOAL
BROWN GRANULAR.
CHARCOAL LENS.
CHARCOAL LENS.
WHITE SAND.
PLASTER & RUBBLE.
Stuff above the fill in depression.
SECTION. D/E 23
(See photo of N section for precise detail)
XXXX = Brown soil with yellow + grey specks inclu + charcoal lens.

Figure 2.20. Field note sketch of section in Van der Stel Moat (M90) of north wall of DE 23, showing Levels A, B and C, banked up against the *onderwal* to the east. (Halkett 1990:19)

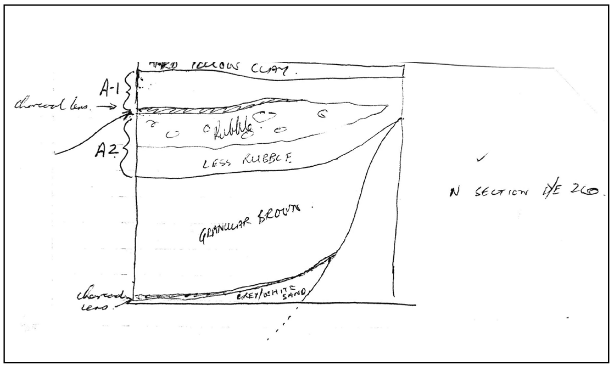

HARD YELLOW CLAY.
A-1
charcoal lens.
A2
Rubble
LESS RUBBLE
GRANULAR BROWN.
charcoal lens.
GREY/WHITE SAND
N SECTION D/E 26.

Figure 2.21. Field note sketch of north section of DE 26, showing demarcation of levels A1 and A2. (Halkett 1990: 31)

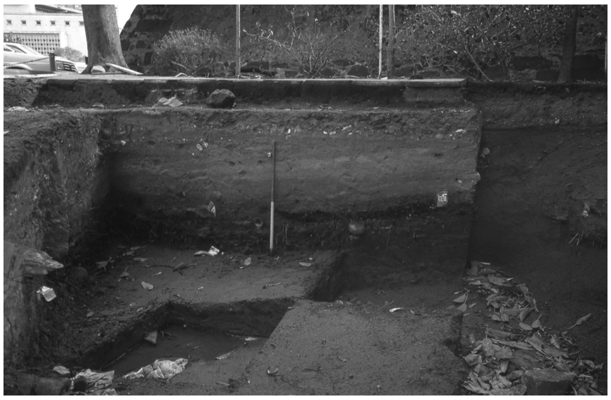


Figure 2.22: Cross-section of the fill in the Van der Stel Moat, showing stratified deposits resting on white sand (Level C). Scale in 20 cm increments. (Archaeology Contracts Office, University of Cape Town, 1990)

Bearing all this in mind I chose three collections based on their degree of stratigraphic control, size, and relevance in the archaeological literature, for detailed analysis. They came from the Van der Stel Moat, the Old Granary (F2), and Donkergat (Figure 2.23). I assembled a team of scholars including Jane Klose, Stacey Jordan, and Adam Heinrich to join me in a systematic analysis of finds and began work in Cape Town in 2003. Later, Carolyn White (University of Nevada) and Jeffrey Durst (Archaeology Division, Texas Historical Commission) joined us to contribute their specialized chapters to this body of work.

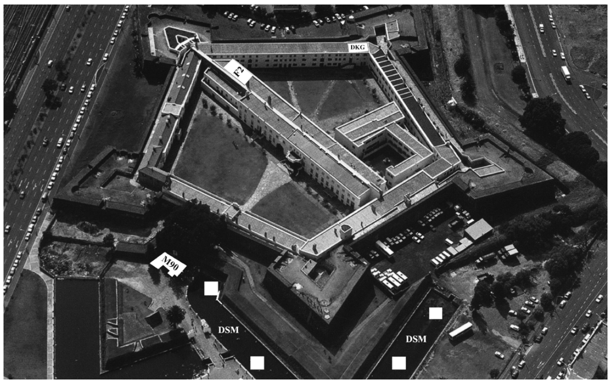


Figure 2.23. Selected archaeological locales in the Castle superimposed on Hoberman postcard 1997, showing key sites described in the text, namely. Van der Stel Moat (M90), Old Granary (F2), Donkergat (DKG), and Darling Street Moat (DSM). (Heinrich 2010: 87, Fig. 3.3)

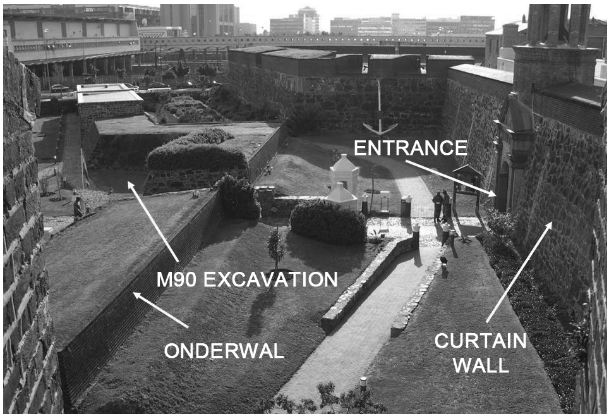


Figure 2.24. View of the Castle fortifications, showing the position of the Van der Stel Moat (M90) excavation, 1990. (Heinrich 2010: 87, Fig. 3.4).

Van der Stel Moat (M90)

The Castle was surrounded by a partial moat that extended all around except along the seaward side. Excavation of the Van der Stel section revealed a very rich deposit of successive fills dating from the late 17th century to the early 18th century. Its basic features are described with additional data in Appendix A.

Van der Stel Moat (M90): History

The Van der Stel Moat ('M90', 'Mt90') to which we refer henceforth as the 'Moat,' is a section of the larger Castle moat. It was named for Governor Simon Van der Stel, during whose command (1679-1699) it was built. It lies approximately northeast of the main gateway, running along the outer *onderwal* of Buren bastion, between it and the ravelin guarding the main gate (Figure 2.24).

There are three detailed accounts of Castle moat construction (Fitchett 1996: 140-149; Fitchett, 1998; Hall et al. 1990). All three describe the considerable time and labor spent excavating a wet moat and the deleterious effects of standing water on the Castle walls. Hall made test excavations in the Darling Street section (see Appendix A, p. 246). He distinguishes between the moat as it was intended-to-be and the compromises made to produce its final form, concluding that it was never more than a 'token part of the Castle's defenses' (Hall 1989; 17-22, Hall et al. 1990: 31). Fitchett demurs, saying that the moat was far more than a mere gesture (1996: 149). Its construction raised the height of the ramparts making the Castle appear impregnable, so much so that when British took the Cape in 1795 and 1803, they preferred to engage in sea battles rather than storming its ramparts (Fitchett 1996: 149). Moreover, when the VOC first ceded the Cape in 1795, the existing Castle defenses suited the British so well that they changed nothing until after their second occupation in 1806 (Fitchett 1996: 149).

The original plans for a moated Castle of Good Hope have been lost. The earliest orders of 1665 specified a five-bastioned stone castle *(Roijale Steene-Fortresse)* at the Cape, and these probably included a moat (Böeseken 1957: 332-333, C.2, pp. 90-93; Fitchett 1996: 126; Fitchett 1998:135; Hall et al. 1990: 23). Moat excavation went on for many years, running alongside the construction of the Castle walls, bastions, and gateways. It was clearly underway in 1677 when orders were given to widen and deepen it (Böeseken 1959: 203-207, C.3, pp. 289-300; Fitchett 1996: 138). Construction proceeded sporadically with numerous modifications (Fitchett 1996: 135-143; Hall et al. 1990: 26, 27, 30). Some stretches may have been wet in 1681, when concern was voiced about the effect of water on all of the bastions (Fitchett 1996: 142-143; Böeseken 1961:5). Slaves were still at work digging the moat in 1685 and again in 1689 (Fitchett 1996: 144). In 1703, General Harman de Wilde, the First Councillor-Extraordinary of India, visited the Cape and reiterated earlier resolutions to deepen the existing dry moat and to build a "*fauchebre*" or *fausse braye* all around the Castle (Fitchett 1996: 146; Hall 1990: 29; Ras 1959: 87). Work began in 1707 but apparently stopped in 1710 on orders from the East Indies (Fitchett 1996: 147; Kolbe 1727 Vol. II: 432).

Different sections of the entire moat became operational at different times, and the inland stretch on the mountain side was never deep enough to stay wet all year-round (Hall et al. 1990: 29). Our main purpose here is to focus down on the Van der Stel section and try to find documentary evidence of the age of the excavated deposits there. This turns out to be far less simple than it sounds, because it seems that no one noted the day the workers stepped back from the moat walls and let the water gush in, nor did anyone observe exactly when the last load was tamped down on the infilled section. Dated sketches do not subscribe to the same iconographic conventions, and water is sometimes denoted with wavy lines, sometimes with blue wash, and sometimes, not at all. Nor does the presence of a bridge leading through the gateway necessarily denote water underneath it, because a wooden causeway was probably needed to prevent the restricted passageway from becoming churned up by heavy traffic. So without wanting to appear too dismal, I have to say that though efforts to establish *termini* for the Van der Stel Moat fill are worthy of note, findings are nevertheless tentative.

The first question is when did the moat first reach its final depth at which the lowest and earliest residues were deposited? If the Van der Stel section were urgently needed to guard the adjacent entryway—and Harman de Wilde's orders of 1703 specifically linked keeping a well-guarded gateway with a wet moat and ravelins (Fitchett 1996: 146; Leibbrandt 1896b: 62)—it might have been filled with water by the time the gateway was completed in 1682 (Fitchett 1996: 143-144). However, there is no moat shown on a map of 1691 (Brommer et al. 2009: Sheet 80 above). If a wet moat were not in place when the gateway was opened, its appearance might have coincided with the completion date of the ravelins around 1707 (Leibbrandt 1896a: 325). A 1710 map by Stade(n) shows a wooden bridge spanning the definite wavy-lined water in the Van der Stel Moat (Figures 2.8, 2.11; see Brommer et al. 2009: Sheet 80 below and Western Cape Archives and Records Service: M1/1103 as redrawn in Johnson Barker 2003: 36-37; Fitchett 1996: 166-167, 901; Seeman 1997: 22-23). A similar walkway or bridge appears in a map by Noodt attributed to 1718 (Brommer et al. 2009: Sheet 91 above), whose reliability seems fine given that his cross-section of the Moat (ibid. 2009: Sheet 91 below) agrees with archaeological findings (Hall et al. 1990: 30, Figures 4, 31). In all, though the Van der Stel Moat may have been wet in 1682, some key dates remain problematic: the 1707 wetness is directly contradicted by a 1714 eyewitness report (Valentyn 1971: 83), and Stade(n)'s map of 1710 is questionable because it mistakenly shows a non-existent section of the Castle moat running all around the Castle including the stretch along the beach (Heinrich 2010: 82-83).

Regardless of when it might have been wet, the Van der Stel Moat was filled up and dry possibly by the mid-18th century and certainly by 1767 and 1786. A map of 1749 shows what seems to be a continuous dry pathway running from the town through the gateway and into the Castle (Figure 2.25; see Western Cape Archives and Records Service: M1/336). The shading on a later map of 1767 also suggests that the Van der Stel section was dry at that time (Figure 2.26; see Western Cape Archives and Records Service: M1/377; Brommer et al. 2009: Sheets 138-139). Sometime between 1762 and 1780, the background of a sketch by Johannes Rach reveals that the moat below Leerdam bastion was wet, as indeed it is today, but unfortunately this has no bearing on the invisible Van der Stel section (Brommer et al. 2009; Sheet 95 above). A better date appears in a colored map of 1786 where the blue water along the seaward side of the Castle and in the Ravelin and Darling Street Moats is conspicuously absent in the Van der Stel section (Figure 2.9; see Brommer et al. 2009: Sheet 119 below; see also Appendix A).

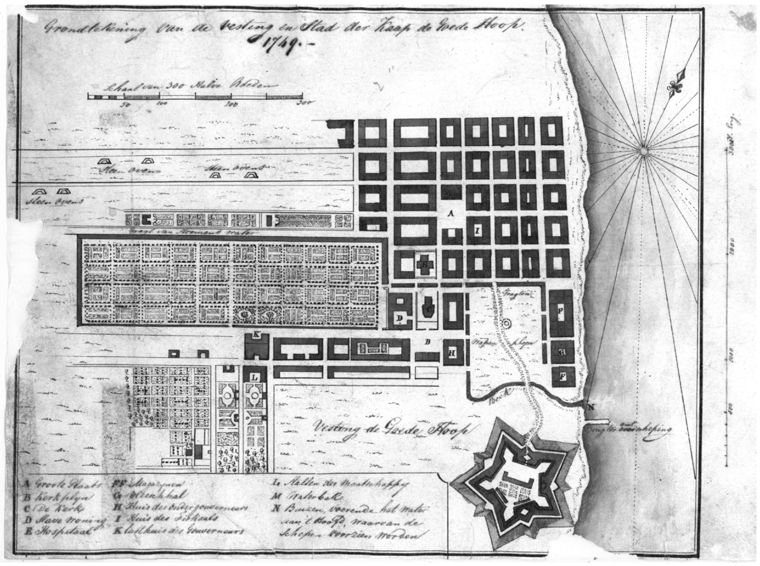

Grondtekening van de Vesting en Stad der Kaap de Goede Hoop. 1749.-
Vesting de Goede Hoop

Figure 2.25. Grondtekening van de Vesting en Stad der Kaap de Goede Hoop. 1749, "Field drawing of the Fortifications and Town at the Cape of Good Hope. 1749." Western Cape Archives and Records Service: M1/335. Note an apparently dry pathway running from the town into the Castle. (Courtesy Western Cape Archives and Records Service)

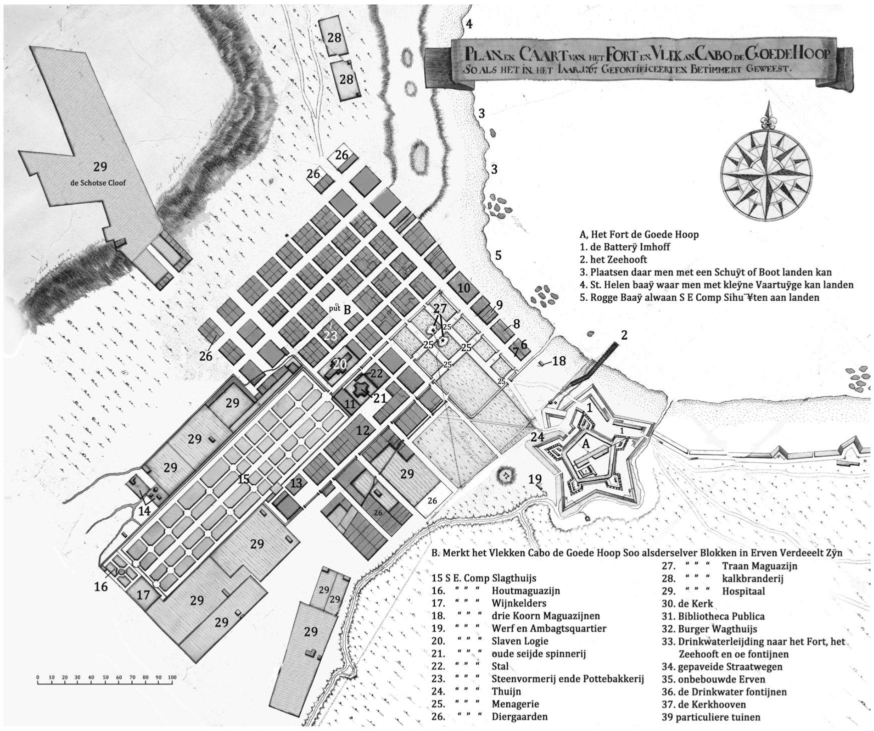

PLAN EN CAART VAN HET FORT EN VLEK AN CABO DE GOEDE HOOP
SO ALS HET IN HET IAAR 1767 GEFORTIFICEERT EN BETIMMERT GEWEEST.
A, Het Fort de Goede Hoop
1. de Batterÿ Imhoff
2. het Zeehooft
3. Plaatsen daar men met een Schuÿt of Boot landen kan
4. St. Helen baaÿ waar men met kleÿne Vaartuÿge kan landen
5. Rogge Baaÿ alwaan S E Comp Sihu¨¥ten aan landen
de Schotse Cloof
put B
B. Merkt het Vlekken Cabo de Goede Hoop Soo alsderselver Blokken in Erven Verdeeelt Zÿn
15 S E. Comp Slagthuijs
16. " " " Houtmaguazijn
17. " " " Wijnkelders
18. " " " drie Koorn Maguazijnen
19. " " " Werf en Ambagtsquartier
20. " " " Slaven Logie
21. " " " oude seijde spinnerij
22. " " " Stal
23. " " " Steenvormerij ende Pottebakkerij
24. " " " Thuijn
25. " " " Menagerie
26. " " " Diergaarden
27. " " " Traan Maguazijn
28. " " " kalkbranderij
29. " " " Hospitaal
30. de Kerk
31. Bibliotheca Publica
32. Burger Wagthuijs
33. Drinkwaterleijding naar het Fort, het Zeehooft en oe fontijnen
34. gepaveide Straatwegen
35. onbebouwde Erven
36. de Drinkwater fontijnen
37. de Kerkhooven
39 particuliere tuinen
0 10 20 30 40 50 60 70 80 90 100

Figure 2.26. Plan en Caart van het Fort en Vlek an Cabo de Goede Hoop so als het in het Jaar 1767 Gefortificeerten Betimmert Geweest, "Plan and Map of the Fort and Settlement at the Cape of Good Hope such as it was Fortified and Built in the Year 1767." Nationaal Archief, 4. VEL 838. An apparently dry pathway is shown leading into the Castle. See also Brommer et al. 2009: Sheets 138-9 and Western Cape Archives and Records Service: M 1/377. (Courtesy Nationaal Archief, Den Haag)

Clearly then, the preceding evidence gives a wide window for the date of accumulation of residues in the Van der Stel Moat. Lacking any indication that it was dredged out in the late 17th and early 18th centuries, we can only conclude that the fill might have accumulated for at least 70 years between 1682 and 1750. The analyses of finds that follow will test this proposition repeatedly.

Van der Stel Moat (M90): Archaeological excavations

The first archaeological investigation of the Moat was done in 1986 under the auspices of the Archaeology Contracts Office at the University of Cape Town, when a series of test pits was dug into the stretch lying south of the main entrance called the "Darling Street Moat" or "DSM" (Figure 2.13; see Schrire and Jeppson 1987). Later work under the direction of Martin Hall revealed that the moat there did not comply with historical specifications. It was a third the size ordered (around 15 m rather than the specified 31 m or 46 m wide), with no central *cunette,* or drain (Hall 1989: 7). The sides were built as recorded, of Malmesbury hornsfels, but the base was lined only with clay and the gradient was such that it could only be filled by seasonal streams rather than daily tides (Hall 1989: 10; Hall et al. 1990: 29). The fill contained a scattering of late 18th and early 19th century artifacts, suggesting that the earlier VOC residues had been emptied out during the British occupation of the Castle and town at the turn of the 19th century (Schrire and Jeppson 1987: 5-6; Hall 1989: 15-17; Hall et al. 1990: 32-33; see Appendix A).

Unlike the Darling Street Moat with its British-era fill, the deposit in the Van der Stel section on the north side of the entrance dates mainly to the earlier VOC occupation (Figure 2.27). It was excavated more fully between September 2 and December 13, 1990, under the direction of Professor Martin Hall by a field crew headed by David Halkett of the Archaeology Contracts Office at the University of Cape Town (Halkett 1990). Code named 'VSM', 'Moat', 'M90' and 'Mt 90¹, we will refer to it henceforth as 'M90'.

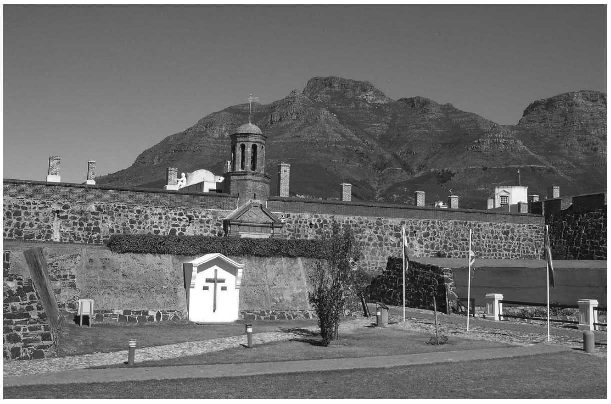


Figure 2.27. View of the Van der Stel Moat area lying to the left of the main gateway at the foot of the *onderwal* and beneath the Delville Wood Memorial to the South African soldiers who fell in the Battle of the Somme in 1916. (Photo C. Schrire, 2005)

Halkett's previous experience came from prehistoric sites, and though this was not his first major excavation of a historic site (he had been digging at the Castle since 1988), he was unfamiliar with certain processes of historic site formation and more specifically with the accumulation of secondary fills. For instance, while prehistoric charcoal lenses are generally interpreted as *in situ* hearths, here it took some time before charcoal lenses were correctly interpreted as cold residues from braziers, ovens, and fireplaces (Halkett 2002, pers. comm.). His careful records include a daily log, as well as preliminary sketches of the stratigraphy that provide an invaluable guide to the interpretation of finds (Halkett 1990). This is fortunate, because I was able to locate only one detailed stratigraphic section in the field archives and have therefore reconstructed the site plan, volumes, and other elements from the field notes alone.

Excavations began in the Garden of Remembrance with a series of test pits to locate the contents of the Moat. The team exposed a wooden cobbled pathway set in cement, and a disturbed fill on the north side of the gateway that was cut by an iron pipe trench (Halkett 1990: 4). Testing went on for almost three weeks, at which time a grid and a permanent datum point were established on the brass plaque of the Delville Wood Memorial (Halkett 1990: 14, 16). The area at the foot of Buren bastion was gridded in a series of squares, labeled from east to west as D, E, F, and G and from north to south along the wall as 22-32. Although the total excavated area had an irregular shape, its deep portions formed an L-shaped trench running along the course of the *onderwal* in a series of 2 x 1 m rectangles (occasionally called 'squares'). They were named in accordance with the grid, so that D/E 23 or F/G 32 denotes rectangles D and E 23 or F and G 32. The excavated area covered about 33 m^2 and extended down to the water table at a depth of around 1.3 m (Halkett 1990: 12; Hall n.d. c, n.d. d). Residues were sieved through a 6 mm mesh screen for the first seven weeks until small beads were found, after which smaller 3 mm mesh sieves were used (Figures 2.18, 2.19; see Halkett 1990: 30).

Once Halkett fully realized that the construction debris in the Moat was a secondary fill laid down "quite quickly," he focused on retrieving a large sample of stratified material. (Halkett 1990: 17; Halkett 2002, pers. comm.). The sequence on the north wall of D/E 23 was mapped as four levels. Reading from top to bottom there was a surface level of brick speckle; Level A with charcoal and sand; Level B with markedly sloping levels of charcoal and brown, granular soil; and finally Level C with a sloping lens of white sand resting on a horizontal layer of plaster and rubble (Figure 2.20; see also Halkett 1990: 19). In general, the strata were thickest in the middle of the Moat, thinning out as they sloped up against the wall. Halkett observed that dumping in the area of D/E 24 emanated from opposite directions (Halkett 1990: 21) and noted post-depositional disturbances in various places, including a pit extending from Level A into Level B (Halkett 1990: 25-26).

About two weeks into the dig, the four levels were expanded to five when Level A in square DE 26 was subdivided into two units: A1, above, included brick speckle, ash and charcoal and A2, below, contained "loose brown dump soil," abundant rubble, and a very rich yield of bones and "reconstructable material" broken *in situ* (Halkett 1990: 28-29, 31). The two layers were originally thought to be separated by a charcoal lens but this turned out to be a localized feature (Figures 2.21; see also Halkett 1990: 31). Below A2 was Level B1, which was also mistakenly first thought to be separated from the basal "grey white sand" by another charcoal lens (Halkett 1990: 31). Halkett realized that although stratigraphic features might not extend widely, characteristic artifactual densities helped demarcate different levels. For example, although Levels A1 and A2 were not always clearly separated, A2 was much richer and contained more building rubble than A1 (Halkett 1990: 31). Levels B and C were more difficult to distinguish as they did not always present a clear sequence (Halkett 1990: 30, 32, 40)

The excavation was now extended to follow the course of the *onderwal* as it turned west (Halkett 1990: 46-47). The deposit continued to be made up of successive, interdigitating lenses of rubble, charcoal, soil, and garbage (Halkett 1990:40). Disturbances were noted (Halkett 1990: 34-39, 41), including pits dug into Level A1 that contained British wares (ibid.: 45). Episodic dumping was recognized as, for example, in a sandy lens of unused, broken pipes spread out over three squares (Halkett 1990: 42, 46). Halkett labeled the material both according to its stratigraphic context and the major level in which it was found (Halkett 1990: 19, 31). The only detailed section that we have of the final excavation is a 9 m long section running along the west wall of D/E. The five successive major levels are shown, but while the first three are labeled Surface, A1, and A2, Levels B and C are termed "Granular brown", and "Grey white sand" respectively (Figure 2.17 a, b).

Van der Stel Moat (M90): Site formation processes

The Moat deposit is the richest source of VOC-era material culture at the Cape. Its contents reflect the rapid accumulation of garbage emanating from multiple sources in and around the Castle. Loads were dumped from different directions, and carts, wheel barrows, or baskets were probably used for the heavier elements. Rubble came from construction and demolition, charcoal from kitchens and braziers and fire places, and artifacts like pipes, ceramics, glass and metals from daily use and broken shipments unloaded off the nearby jetty. Animal bones came from kitchens and nearby slaughterhouses, including one on the jetty (see Heinrich 2010: 118-119; Heinrich and Schrire 2011; Chapter 3).

Van der Stel Moat (M90): Dating

An attempt was made to date the fill using stem bore diameters of samples of clay pipes. The figures are drawn from a major but unpublished study of all colonial Cape collections, available in 1990 (Yates et al. n.d.) and based on the protocols established in the analysis of the Oudepost I pipes (Schrire et al. 1990)

The Duncan means confirm the antiquity of Level C, and show some overlap between Level B and one of the Level A1 samples that suggests either that deposits in Levels A and B accumulated very fast or, more likely, that there has been some error in stratigraphic ascription. This is worth noting because it suggests that the interpretation of artifactual distributions in these levels needs to be treated with some caution (Table 2.1)

Table 2.1. Van der Stel Moat (M90): Pipe stem bore analysis from oldest at bottom to youngest at top (Yates et al. n.d.: 23)

Level	Nos.	Means (mm)	Duncan Means
A1	177	2.217514	B
A1	1640	2.157683	A
A2	890	2.167416	A
A2	1177	2.155055	A
B	919	2.217301	B
C	1348	2.274777	C

Relatively speaking, deposits apparently accumulated in late 17th and early 18th centuries, around the same time as Oudepost I (Schrire et al. 1990). Where an actual chronological date is concerned, the oldest Moat pipe stems postdate those from the shipwreck *Oosterland* (1697), as well as those from another Castle locale in the Old Granary (F2) (Klose, n.d.; 2004; Werz and Klose 1994; Yates et al. n.d; see Table 2.2). This estimate will be tested repeatedly in the chapters that follow.

Van der Stel Moat (M90): Analytical protocols

During the excavation, material was labeled in many different ways that included all or some of the following attributes: square (e.g., D/E 24, F/G 26), sedimentology or soil context (e.g., 'bs' for 'brick speckle', 'gb' for 'granular brown' or 'gw' for 'grey white sand'), and level (e.g., 'Lvl A, A-1, A-2'). Martin Hall erased most of these details when he consolidated the collection into five levels, namely, Surface, A1, A2, B and C. Finds that did not fit into this scheme were labeled 'Other' and 'Disturbed' (not to be included in final counts) (Hall, n.d. c, n.d. d) and are listed as 'NP' ('Non Provenanced' in our analyses). This action was apparently taken while cataloging was under way, which is why pipes and fauna are labeled according to their square, their associated sediment, and their ascribed level, whereas the ascription of ceramics varies, and glass is labeled according to its level only. There is no record of volumes removed. The basic lithological levels are summarized in Table 2.3.

Table 2.2. Comparison of clay pipe stem bores in selected units in Cape colonial collections (see Hart and Halkett 1993: 32-33; Schrire et al. 1990: 279, 282, 293; Yates et al. n.d.: 8, 23, 24, 25,26). *Note a correction of Phase 1 bores (Yates et al n.d.: 23, 24)

Site	Unit/Phase	Fragments (nos.)	Mean
Elsenburg 1	DG	1372	2.04767
Elsenburg 2	DG	1246	2.05313
Oudepost I	Total series	6855	2.20000
Oudepost I	FTII	301	2.26279
Moat	C	1348	2.27478
Oudepost I	EAM	54	2.28981
Vergelegen	(Slave Lodge)	163	2.37607
Castle F2	7	340	2.38000
Castle F2	5	203	2.44384
Castle F2	4	173	2.53121
Oosterland (1697)	-	485	2.64392
Castle F2	3	215	2.65349
*Castle F2	1	161	2.69876

Table 2.3. Van der Stel Moat (M90): Stratigraphy and lithological groups

Level	Sediments: lithology	Comments
SF	Gardening soil, clay, brick speckled elements.	Post-VOC era deposits, occasionally disturbed by recent paving and pipe laying. Often removed without sieving. (Halkett 1990: 33, 49, 53).
A 1	Brown soil patches, charcoal lenses, brick speckled elements, heaps of pipes.	Intact moat fill. No marked break was visible between this and underlying level.
A 2	Loose brown soil and abundant building rubble.	
B	Granular brown soil with occasional yellow-grey flecks, charcoal lenses.	
C	Grey white and yellow and orange sand with charcoal lenses Rubble in places.	Lying partly below water table in 1990.

Old Granary (F2)

The Old Granary in Block F2 was thought to be the oldest Castle site. It consists of residues excavated within the bounds of the building as well as those pre-dating the structure. The names 'Old Granary' and 'F2' are used interchangeably here, as in the literature, and much of its contents, especially the Asian wares, are designated as coming from the Castle excavations of 1988 and labeled as 'CA88.F2.' The site is well known, largely because its residues were the first such South African finds to be interpreted as the material transcript of resistance left by the colonial underclass, mainly slaves and possibly indigenous Khoekhoe clans (Hall 1992b).

Old Granary (F2): History

The Old Granary (F2) is a vaulted chamber located on the southeast side of the Kat wall (Figures 2.11, 2.13, 2.23). The term 'Kat' derives from the English military term 'Cat' for 'cavalier' to denote a structure raised above its surrounds in order to command them (Fitchett 1996: 170). Just such a structure had actually stood seven feet above the ramparts of the original Fort de Goede Hoop, where it was used for church services and meetings of the Council of Policy (Brommer et al. 2009, Sheets 70 below, 77; Fitchett 1996: 170). The new Kat, or *nieuwe cat*, in the Castle took its name from the fact that it hosted the same meetings though it was not a tower at all. It was a defensive wall built across the open court sometime between 1685 and 1691 to protect the front court and the Buren bastion from a possible attack from the mountains (Fitchett 1996: 144, Fitchett 1998: 139; Ras 1959: 85; Brommer et al. 2009: Plate 80 above). It houses a long line of adjoining buildings running between the midline of Leerdam and Oranje bastions to the crux of Catzenellenbogen bastion. It cuts across the original single pentagonal courtyard of the Castle, bisecting it into two uneven quadrangles called the outer and inner courts (Figures 2.11, 2.13, 2.23, 2.28, 2.29; see also Johnson Barker 2003: 38-41). Some see it as an aesthetic disaster that "…destroyed its symmetrical design… [and] prevented the possibility of any visual focus being achieved from the new entrance" (Fitchett 1996: 168). Unattractive though it may be, it was nevertheless a useful addition. In VOC times the Kat housed residences, offices, and storage facilities. These areas were all categorized by the architectural restoration project as Block F, and include the Secunde's House (F1), the Old Granary (F2), and the armory (F3) (Fagan 1988; Fransen and Cook 1980: 39-40; see also Appendix A)

The Old Granary is accessed from a door in the archway in the east end of the Kat wall that leads from the front to the back courtyard (Figure 2.30). It was erected in 1694 as an airtight store room for wheat and corn and was described in 1696 as a vaulted chamber on the 'Italian plan' invented by the Governor (Leibbrandt 1896a: 3, 11). Lofts and pits were used for grain storage elsewhere in the VOC realm in places

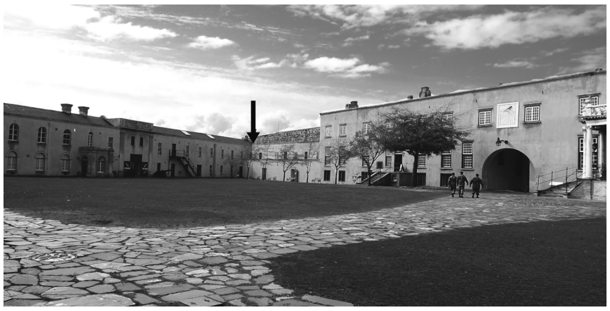


Figure 2.28. View of the front courtyard of the Castle,showing the Kat wall, with the arrow pointing to the the Old Granary (F2). (Photo C. Schrire, 2008)

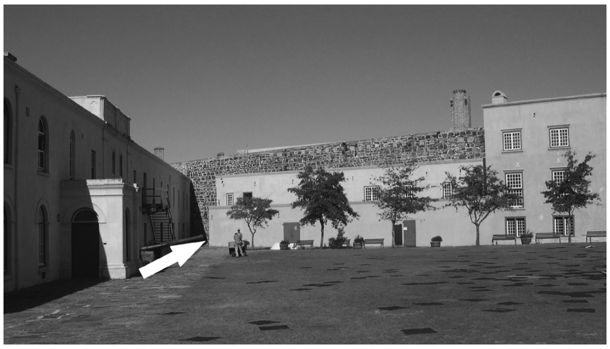


Figure 2.29. Entrance to the Old Granary (F2) as seen from the front courtyard, with the arrow pointing to the archway piercing the Kat wall where it joins the inner wall of Catzenellenbogen bastion. (Photo C. Schrire, 2008)

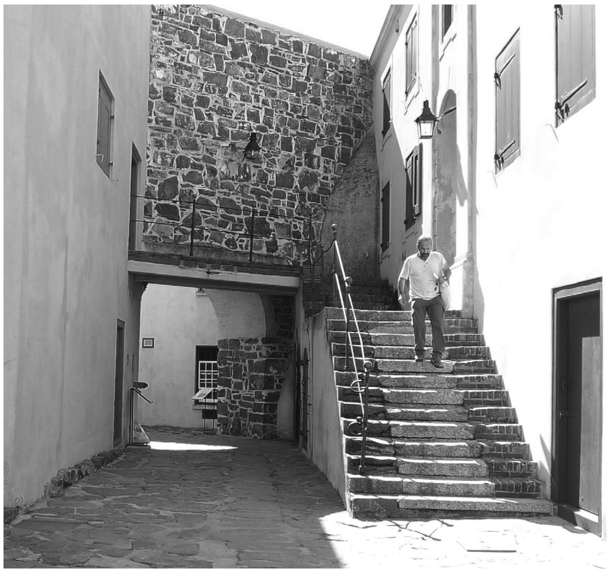


Figure 2.30. The archway cut into the Kat wall, as viewed from the rear courtyard. The entrance to the Old Granary (F2) stands under the arch, to the left of the small sunlit patch. (C. Schrire 2011)

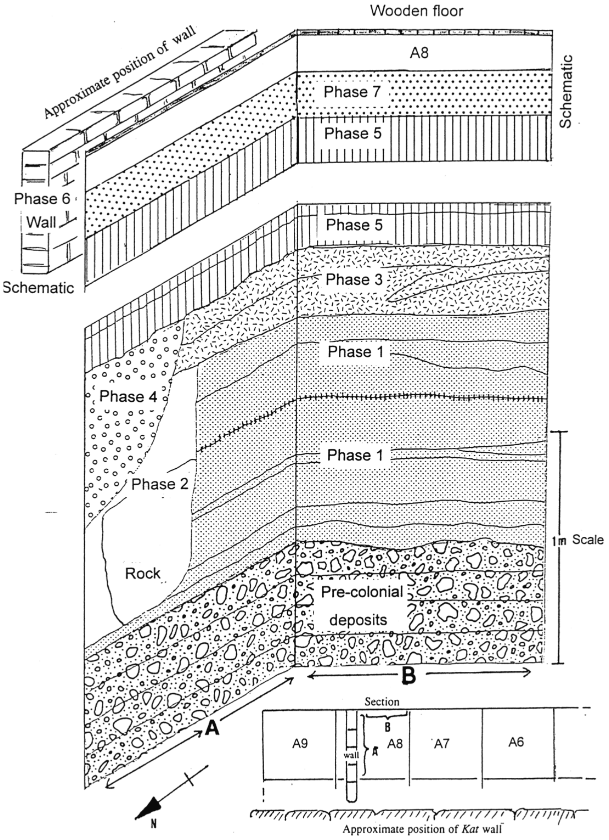


Figure 2.31. Diagrammatic sketch of sequence in the Old Granary (F2), adapted from a drawing by David Halkett. (Klose 1997: 112)

like Surat and Bengal, but vaults were preferred at the Cape (Fitchett 1996: 163; Leibbrandt 1896c: 8). It appears on the Stade(n) map of 1710 as one of several oil and wheat stores (*koornkelders*) (Figures 2.8, 2.11; see Brommer et al. 2009: Sheet 80 below as redrawn in Johnson Barker 2003: 36-37; see also Fitchett 1996: 166-168). It was one of many such Castle warehouses, some of which held trade goods (Ras 1959: 76-77), timber (Fitchett 1996: 157), clothing (ibid.: 160), and rice (ibid.: 164). Vaulted rooms apparently served more purposes than grain storage, since instructions were given in 1704 to convert the corn vaults into bomb proof shelters for soldiers in the event of a surprise attack (Leibbrandt 1896a: 239).

Old Granary (F2): Archaeological excavations

The floor of the vaulted chamber of the Old Granary was excavated between April 29 and September 9, 1988 by the Archaeology Contracts Office under the direction of David Halkett. The field notes in our archives include both his observations and those of the students on his team, amalgamated later by the director of the project (Hall 1988).

The site was dug on a one meter grid with widespread removal of surface deposits (Hall n.d. b: 6). The excavators cleaned up a recent construction trench and dug two small soundings, reaching the base of the historical residues at a depth of 2.25 m and an underlying pre-colonial deposit at around 2.75 m (Halkett 1988a; Hall 1988; Klose 1997: 112). Attention focused on the most striking stratigraphic feature, namely the Kat wall, whose foundation trench, dug sometime between 1685 and 1691, cut through the lower deposits in F2, dividing the deposit into pre-Kat wall Phases 1-2 and post-Kat wall Phases 3-7 (Figure 2.31; Table 2.4; see also Appendix A).

The excavation faced a number of challenges. Many of the excavators were trained in prehistoric archaeology with no previous experience on historic or any other sites. This, coupled with poor visibility in a dark chamber, probably accounts for the lack of specificity when describing features such as pits (Hall 1988: 12). Although some field notes recognized builders' rubble as fills that served to raise the floor level (ibid.: 7), most of the excavators interpreted the deposit as occupation debris or living floors, with hearths and residues denoting cooking and *in situ* consumption (ibid.:11). Pits were repeatedly noted (Hall, 1988 quoting field notes of student excavators: 12, 13, 35), and one was thought to contain the remains of "nearly a whole sheep" (ibid.: 12). Their construction and function was never stringently tested in the field.

Old Granary (F2): Suite formation processes

The present surface of the Old Granary stands about level with the courtyards and passages outside, and the 2 m deep deposit there suggests that the ground on which it originally stood was deeply fissured, in much the same way as may be seen in the surrounds of the nearby Fort de Goede Hoop (Brommer et al. 2009: Sheet 77). The fill was originally interpreted as the accumulated *in situ* residues of occupants. The layers were termed "rich occupation horizons, cut through by pits full of debris," and the possibility that this was a secondary ('out of context') fill was specifically rejected on the grounds of intact hearths, horizontally laid material, and articulated fish skeletons (Hall 1992b: 389)

These interpretations merit some discussion. Starting with the evidence of an indigenous presence, we noted earlier that such debris could easily have been incorporated in later Castle residues since the Castle was built on land previously occupied by Stone Age people. The excavators of the Old Granary never dwelled long on the associations of stone artifacts or coastal pottery in the lowest level of F2 (Hall 1988: 5, 21), though one excavator did ascribe the association of an articulated fish skeleton, Cape coastal pottery, and pipe stems to "…very firm evidence for contact" (ibid.: 21). Instead, the most persistent interpretation of the deposit was as the residues of slaves. This was first voiced on the second day of excavation (April 30, 1988), when a student attributed a unit with fish bones, ostrich eggshell, a backed bladelet, and a small amount of porcelain to slaves or Khoekhoen

Table 2.4. Old Granary (F2): Stratigraphy (after Hall n.d. b: 6-8, 15; Heinrich 2010: 152-154; see Appendix A, Section a viii b)

Phase	Depth BS (cm)	Lithography/features	Interpretation	Construction date	Pipe stem date
	0		Deposits sealed by a raised wooden floor	c. 1820	
Phase 7		Hearth, rubble, some compaction; white mortar floor; pits, ash scatter	Ash seen as evidence of occupation		Late 17th-early 18th century
Phase 6		Walls subdividing area into bins	Brick grain bins		Late 17th-early 18th century
Phase 5	75-90	Rubble, hearth, ash; compacted floors; pits	Reoccupation after repairs to Kat wall; ash and hearth seen as evidence of occupation		Late 17th-early 18th century
Phase 4		Gritty brown soil; rubble	Fill from partial re-excavation of Kat wall foundations for undocumented repair		Late 17th-early 18th century
Phase 3	90-120	Gritty soil, clay; rubble, plaster, clays; ash, charcoal; pit	The only deposits directly related to the Old Granary itself; vaulted chamber? hearths	Mostly post-1691 Kat wall construction; c.1694 when Kat wall and Granary were complete	
Phase 2			Fills from foundation or builder's trench of Kat wall	c.1685-91	Pre 1697
		Yellow clay seal			
Phase 1	120-220	Gritty soil, sand; rocks, plaster	Cut by Kat wall foundation trench	Predates Kat wall 1685-91; predates Granary	Pre 1697
Pre-Colonial	220-275	Gritty basal soil, white sand, rocks, plaster, sealed with yellow clay	Predates Kat wall and Granary; open air occupational debris of colonists and natives	Predates Castle leveling 1666; Pre 1685	

(Hall 1988: 5). The very next day, the same student attributed "bone, fish bone, shell and earthenware ceramics, with a low incidence of imported ceramics [to] a low status occupation (?slaves)" (Hall 1988: 7-8). Although the slave attribution was queried by a historian who thought that one could not distinguish slaves' from soldiers' residues because both were fed fish (Dooling 1992: 45; Dooling 1994: 23), it resonated repeatedly in faunal analyses (Hall 1992a, 2000: 18; Horwitz and Avery 1989; Thackeray 1989). It was later elaborated, when the presence of fish bones was seen as evidence of slave diet and pits were interpreted as the Cape equivalents of the 'hidey-holes' used by slaves in colonial Virginia (Hall 1992b: 389-390). Above all, the associated fragments of fine quality Chinese export porcelain (see Chapter 4) were interpreted as loot stolen by slaves in acts of resistance that turned the semiotic world upside-down (Hall 1992b: 390; see also Hall 1999: 196; Deetz 1996: 220; Scott 1985).

This view has been reiterated uncritically for almost 20 years (Hall in Lucas 2006: 62-63; Hall 2008: 129-130). On re-examination, the stratigraphy actually suggests repeated dumping rather than occupational debris (Figure 2.32). Rubble and other residues form a slight cone of deposition in the best sketch we have (Klose 1997: 112), and bricks appear to be sliding down a slope after they were deposited (Hall 1988, field diagrams; Figure 2.33). Compaction over time, gleying in damp depressions, and repeated deposition are all evident in the stratification (Heinrich 2010: 150-152; Pyddoke 1961: 112; Schiffer 1987: 203-204). Together they suggest that a series of fills were deliberately deposited in the Old Granary, probably to raise the ground surface in the vault above the water table. This assessment blatantly contradicts Hall's interpretation, and in doing so, diminishes the evidence for primary, *in situ* occupation of the Old Granary by slaves.

Had this complex site been excavated *after* the Van der Stel Moat, the slave resistance interpretation might never have flown. The secondary nature of the Moat fill was never under dispute, and had Halkett worked there first, he would certainly have recognized the consolidated surfaces of slates, roof tiles, and masonry in the Old Granary for episodes of

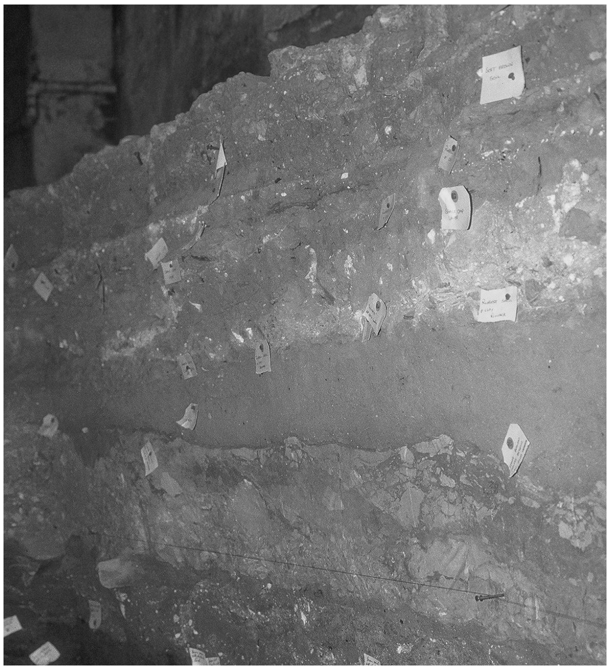
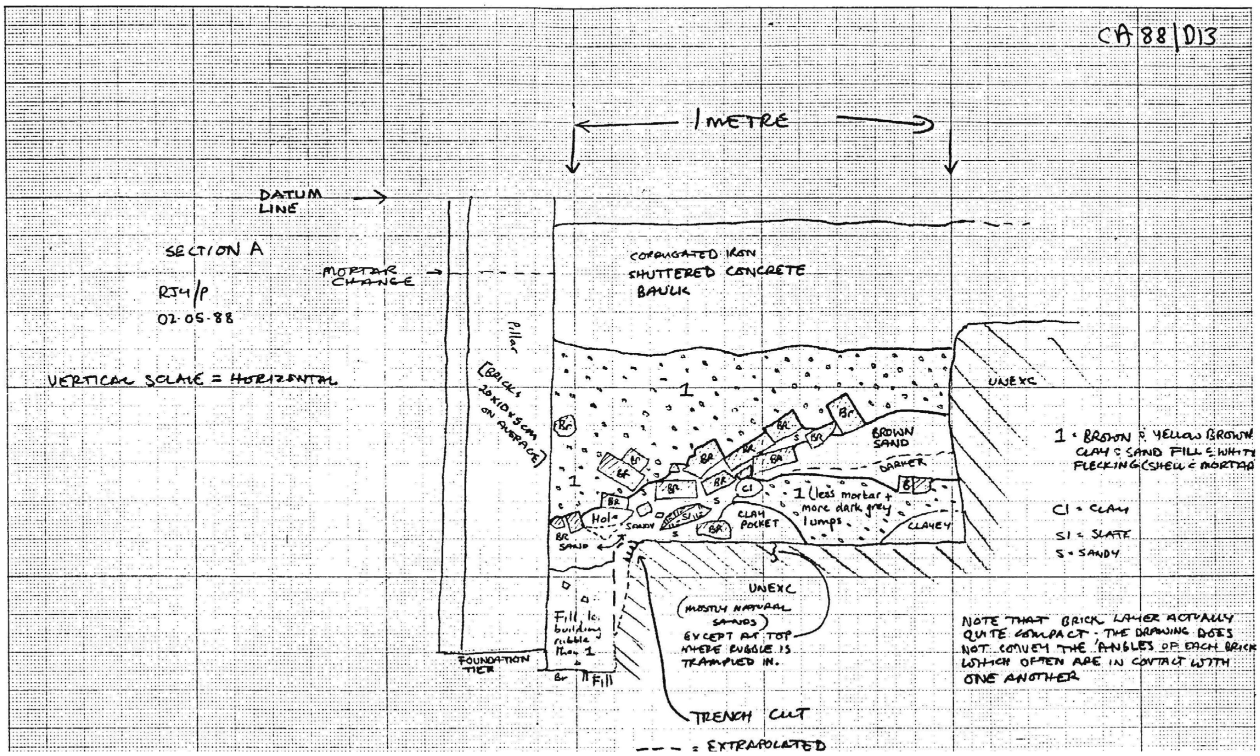


Figure 2.32. View of stratigraphic sequence in the Old Granary (F2), showing demolished building debris deposited in the fill of a trench dug there in c. 1685-1691 to accommodate the Kat wall. (Archaeology Contracts Office, University of Cape Town, 1988)

intermittent dumping, not occupation. He might also have interpreted the thin, consolidated lenses in F2 as evidence of standing water and muds that accumulated in shallow pools before the level of the floor was raised (cf. Heinrich 2010: 150 citing Waters 1992: 34). Likewise, careful inspection of the archives would have shown that Dooling was correct in pointing out that poor people of all sorts—slaves and the garrison alike—ate a lot of fish (1994: 23). Later analyses of faunal remains confirm the secondary nature of the deposit (Heinrich 2010: 178-179; Heinrich and Schrire 2011). As for the 'pits' in F2, had Halkett excavated the vaulted Donkergat locale before the Old Granary (see the following section), he might immediately have recognized them as post holes that housed scaffolding (Halkett 1988c: 46; Halkett 2002, pers. comm.).

There is a political dimension to the interpretation of the Old Granary deposits as residues signaling slave resistance to authority. We need to remember that when these assumptions were being voiced, slave histories and resistance in colonial South Africa were striking a powerful chord (Ward and Worden 1998: 212-217). Archaeology became allied to a new wave of political change that transformed some from grave robbers to mouthpieces for the underclass, specifically slaves. This issue will be discussed further in the final chapter of this book.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S = SANDY
UNEXC (MOSTLY NATURAL SANDS) EXCEPT AT TOP WHERE RUBBLE IS TRAMPLED IN.
NOTE THAT BRICK LAYER ACTUALLY QUITE COMPACT - THE DRAWING DOES NOT CONVEY THE ANGLES OF EACH BRICK WHICH OFTEN ARE IN CONTACT WITH ONE ANOTHER
TRENCH CUT
- - - = EXTRAPOLATED

Figure 2.33. Field note sketch of stratigraphy in the Old Granary (F2), showing slope on which bricks rest. (Hall 1988: Field diagrams p.1)

Old Granary (F2): Dating

The excavated finds from the Old Granary were dated in two ways: first, in relation to the Kat wall, whose foundation trench, dug sometime between 1685 and 1691, cut into pre-existing deposits in Phases 1 and 2 and possibly Phase 3 (De Bosdari 1953: 48); and second, according to the associated pipe stem diameters (shown in Tables 2.2, 2.5) (Yates et al. n.d.):

Table 2.5. Old Granary (F2): pipe stem bore analysis (oldest at bottom) (Yates et al. n.d.: 23, 24, 26)

Phase	Nos.	Means (mm)	Duncan Means
7	340	2.38000	A
5	203	2.44384	B
4	173	2.53121	C
3	215	2.65349	D
1	161	2.69876*	E

*Note correction made here (Yates et al. n.d.: 24, 26).

The F2 pipe stem data are internally consistent and suggest that the deposits there accumulated before those in all other sites in our VOC series, including the Moat (M90) and Oudepost I. Where calendrical dates are concerned, the stems in Phase 1 and possibly some in Phase 3 predate the Kat wall of 1685-91 (Table 2.4) and actually resemble the those from *Oosterland* shipwreck of 1697 (Schrire et al. 1990; Werz 2004; Werz and Klose 1994; Yates et al. n.d.; see Table 2.2). These estimates will be tested repeatedly in the chapters that follow.

Old Granary (F2): Analytical protocols

The 2 m thick stratigraphic sequence in the Old Granary excavation was created by consolidating a number of discrete sedimentary units together into seven Phases (see Heinrich 2010: 149-154; see Appendix A). There is no record of the volumes removed. Field notes and photographs suggest that deposition occurred as a series of roughly parallel bedding planes whose uniform depths suggest some effort to level off the surface. These seldom covered the entire surface, suggesting that they were dumped intermittently and not left open long enough for soil profiles to develop (Schiffer 1987: 200-201; Waters 1992: 40). The strata are of different thickness, texture, and color, suggesting that they originated in different sources outside the site. Evidence of compaction suggests that there was periodic exposure between episodic fillings whose net effect was to raise the level of the floor and keep it dry (Hall n.d. b: 1; see Appendix A).

Castle: Donkergat

Donkergat (DKG) means 'dark hole.' It was a small 4 x 8 m vaulted room in Block D at the base of the curtain wall of the Nassau bastion (Figures 2.11, 2.13, 2.23; see Appendix A.). This high vaulted chamber with two external air vents was outfitted as a torture chamber in 1698 (Halkett 1988c: 1; Hall n.d. a: 6). As such, it resembled the so-called torture chamber opposite the entrance to the Old Granary (F2), which is currently called 'Donkergat' (Halkett 2002 pers. comm.). It was excavated concurrently with the Old Granary (F2) between July 7 and August 2, 1988 by the Archaeology Contracts Office at the University of Cape Town under the supervision of David Halkett (Halkett 1988c). Excavated residues here included building rubble, artifacts, and abundant animal bones. The deposit was disturbed by mice nests and burrows, as well as numerous pits. Unlike the residues in the Old Granary, the Donkergat deposits were interpreted not as living floors but as secondary fills from nearby kitchens dumped to raise the floor level (Heinrich 2010: 146). Likewise, unlike the pits in F2 that were interpreted as slaves' hiding places, the pits here were called 'post holes' (Halkett 1988c: 46). They were thought to have housed the scaffolding erected to construct the vaulted roof (ibid.: 46; Halkett 2002, pers. comm.). The associated artifacts postdate those of the Old Granary, being mainly British ceramics of the late 18th century (Klose 2005, pers. comm.)

Castle: Conclusions

To sum up then, the VOC Castle was a bounded space, occupied by hundreds of people from diverse backgrounds who generated large quantities of garbage. These ended up as primary and secondary deposits for later archaeological excavation. The dictum of 'a place for everything and everything in its place' did not apply at the colonial Cape, where garbage was broadcast widely in the nearest available space, accumulating in heaps outside the kitchens, below windows, and down the nearest well or privy. Until public health legislation was enacted in the late 19th century (Worden et al. 1998: 226-227), the Castle disposed of its own waste. As it was a military establishment, fetid middens were constantly being shifted out of sight, if not out of smell. Company sailors removed Castle sewage in 1680 (Dooling 1992: 15) and thirty years later, ditches lying only100 paces from the landward bastions of Leerdam and Oranje were specifically reserved for "sanitary purposes" (Mentzel 1921: 101). As for the age-old drainage problems, they were addressed by dumping secondary fills of sand, gravel, clay, rubble, kitchen waste, and manufacturing debris to seal and elevate the ground. Consequently, most residues lying in and around foundations and most surfaces within existing structures are more likely to have been dumped there as fills than to have emanated directly from *in situ* occupation.

Some recent Castle residues had a new destination. In 1998-99, immense quantities of earth were mechanically excavated from the Darling Street section of the moat that runs along the mountain side of the Castle between Leerdam and Oranje bastions. It was trucked off as land fill to Bonteheuvel, a settlement on the Cape Flats about 10 km away. If ever a late 18th to early 19th century archaeological 'site' is found there, we should remember the Castle and its 350 year history.

Oudepost I

Oudepost I (OPI): History

Oudepost ('Old Post') I was an outpost of the Dutch East India Company situated on the lagoon of Saldanha Bay, about 120 km north of the Castle of Good Hope. Its Cadastral Information includes the Erf/Farm Number: Oude Post Strand No. 373; Longitude: 33°8′14.10″ S; Latitude: 15°1′36.75″ E, and its Map Reference is WGS 84 Recording Method: GPS (Figures 2.34, 2.35). It was built in April 1669 after French threats to take the area were made in 1666 (Raven-Hart 1971: 94-99) and was operating when the French returned to challenge the VOC sovereignty in 1670 (ibid.: 99-101). It became one of many such outposts strung out along the frontier of European penetration into the lands of indigenous people (Sleigh 1993). It was temporarily abandoned in 1673, when it was attacked by hostile Khoekhoen who murdered four men and plundered the post (Figure 2.36; see Leibbrandt 1902: 142-143; Schrire 1995: 96). Operations resumed around 1685 and continued until 1732 when it relocated to the Post House (what we archaeologists call 'Oudepost II'), about 3km up the coast (Figure 2.35). Oudepost I was occupied by a garrison of four to ten soldiers under the command of a postholder. The men were under orders to provision passing ships with water, food, mail, and succor, and to facilitate these operations through trade with local pastoral foragers called 'Hottentots,' local settler farmers and with personnel from other VOC outposts. Records of the outpost include official dispatches from the VOC Castle, travelers' accounts, supply lists, maps and court records (Schrire, 1995: 93-96; Sleigh, 1993: 411-468).

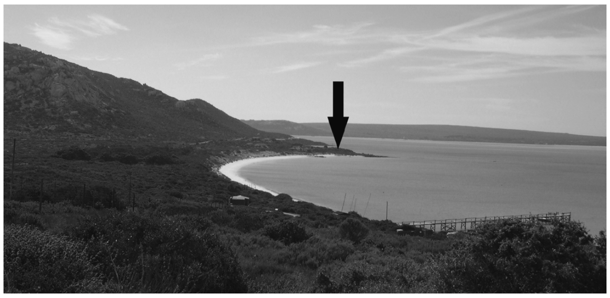

Figure 2.34. View of Oudepost I, Cape, looking north. (Photo C. Schrire 2010)

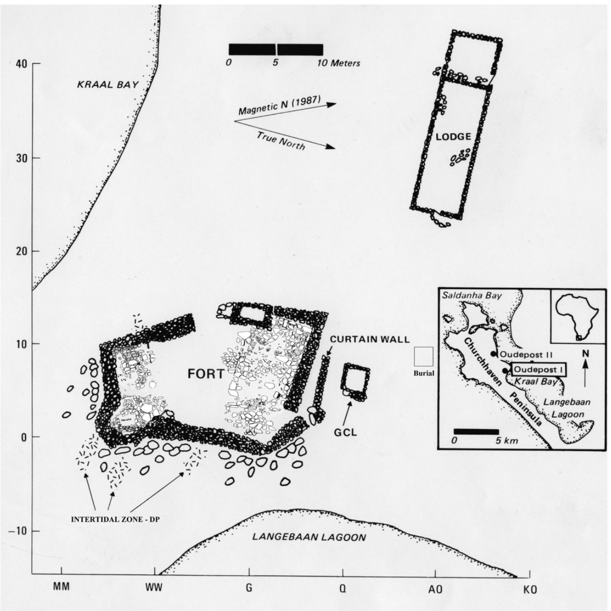

Figure 2.35. Plan and location of Oudepost I, Cape. (Schrire et al. 1990: 270)

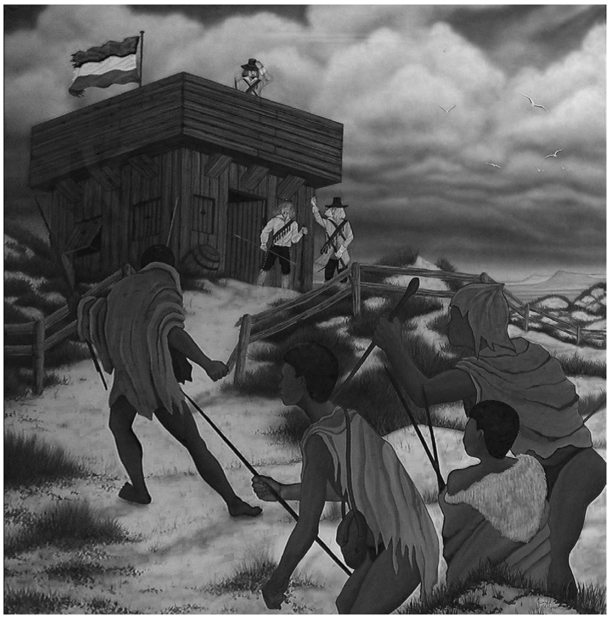

Figure 2.36. Diorama in the Castle of Good Hope Military Museum, showing the 1673 attack on the VOC outpost at Saldanha Bay. The square wooden fort is similar to one pictured in Sleigh 1996:46 but nothing like the Oudepost fort. (Photo C. Schrire, 2009)

Oudepost I (OPI): Archaeological excavations

Today the ruins of the outpost stand on a beach on the southwestern shore of Langebaan lagoon, an embayment of Saldanha Bay. The site lies at the foot of the Postberg hill alongside one of the few freshwater springs in the region. Since no unambiguous drawing or map of the post has yet surfaced, its operation as a late 17th to early 18th century outpost is based on archaeological and archival sources.

Archaeological research at Oudepost revealed a land-based settlement and a dumping area (DP) in the intertidal zone (Figure 2.37). Extensive excavations took place under the direction of the author and Cedric Poggenpoel of the University of Cape Town mainly between 1984 and 1987, with short forays into the offshore dump between 1990 and 1995 and intermittent inspections by Jane Klose several times a year (Cruz-Uribe and Schrire 1991; Jordan 2000a; Schrire 1987, 1988, 1990, 1991, 1992, 1995; Schrire and Deacon 1989, 1990; Schrire et al. 1990; Schrire and Meltzer 1992; Schrire et al. 1993). An area of about 433 m^2 of the 2500 m^2 site (17%) was excavated on land, and a number of rock pools were scooped out in the intertidal zone DP, up to 40 m offshore (Figure 2.37; see Schrire et al. 1993).

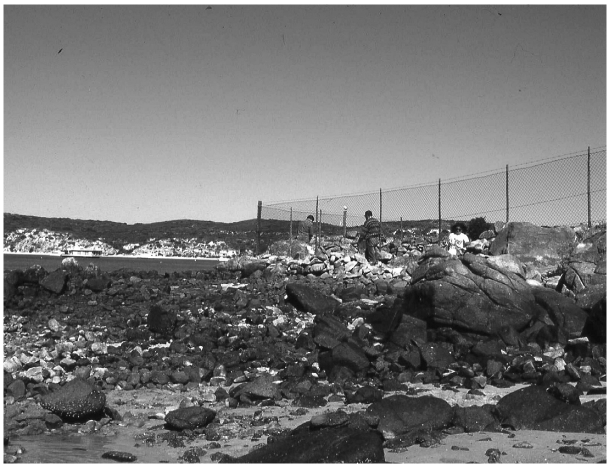

Figure 2.37. View of intertidal zone at Oudepost I, Cape, showing location of the offshore dump, DP. (Photo C. Schrire, 1995)

Excavations revealed three main stone structures built from rocks collected off the adjacent beach. The first was a thick-walled irregular structure standing in part on an exposed basal granite shelf at the water's edge, which we called the 'fort' (Figure 2.38; Schrire 1995; Schrire et al. 1993). It had several separated enclosures, areas paved with irregular flat slabs of stone and intermittent yellow bricks, sometimes cemented with shell plaster (Figure 2.39). In addition, large lumps of plaster with patent reed indentations suggest that sections had once been roofed with beams and thatch.

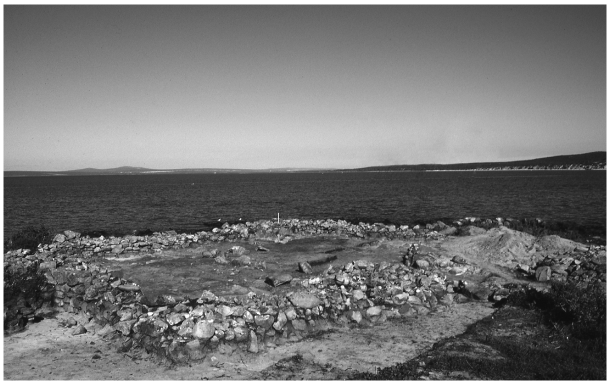

Figure 2.38. View of the fort at Oudepost I, Cape, showing rough stone walls. Scale in 20cm increments. (Photo C. Schrire, 1987)

The second structure was a long, rectangular building measuring 19.85 m x 5.65 m (c. 62 x 18 Rh. ft) with 0.54 m-thick walls (Schrire et al. 1990: 272). It stood about 30 m from the water's edge (Schrire 1995: 96-99). We called it the 'lodge,' a term derived from the Dutch *'loge'* or *'logie'* that was used to describe VOC compounds abroad (Figure 2.40; see Floore and Jayasena 2010: 329-330, 338: footnote 3). The lodge walls were thinner than those of the fort, and there were two rooms, a large one accessible through a sea-facing door on the shorter wall and a smaller one at the back with an entryway facing north. The roof structure is not known. Having no signs of gables, chimney, or post holes and too few fallen rocks to account for formerly substantial walls, the building might have been a modified version of the wall-free *kapstylhuisie* with a pitched roof supported by low walls (Schrire et al. 1993: 24; Walton 1981). Such a structure appears on a 1656 map of Dassen Island as "a storage hut where the train-oil cookers were housed" (Figure 2.41; see Brommer et al. 2009: Sheet 218 below; for materials shipped out see Thom 1952: 267). Similar structures appear as coops on a 1671 map of farmland at Vuijle Bocht in Mauritius (Figure 2.42; Brommer et al. 2009: Sheet 407 below). Excavations revealed about 40 cm of unstratified sand inside the lodge, with occasional rough stone placements and patches of charcoal, suggesting that fires were made for cooking and warmth on the sandy floor and smoke simply drifted out through the thatch or through the gap between the walls and the roof. Small patches of shell plaster were embedded in the standing walls and larger lumps of plaster showed indentations of reeds, together suggesting that here, as in the fort, the walls were originally plastered and the roof thatched (Schrire 1995: 97; Schrire et al. 1993: 24).

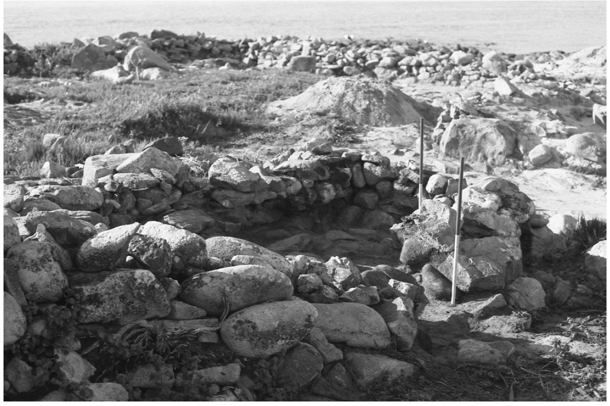

Figure 2.39. View of the fort at Oudepost I, Cape, showing enclosure AY. Scale in 20cm increments. (Photo C. Schrire, 1987)

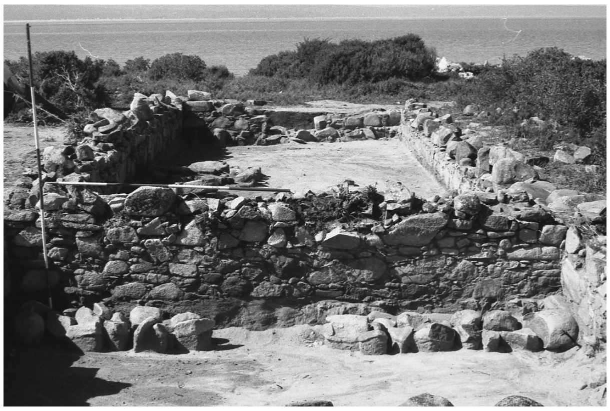

Figure 2.40. View of the lodge at Oudepost I, Cape, showing foundations of an earlier structure running alongside the dividing wall. Scale in 20cm increments. (Photo C. Schrire, 1987)

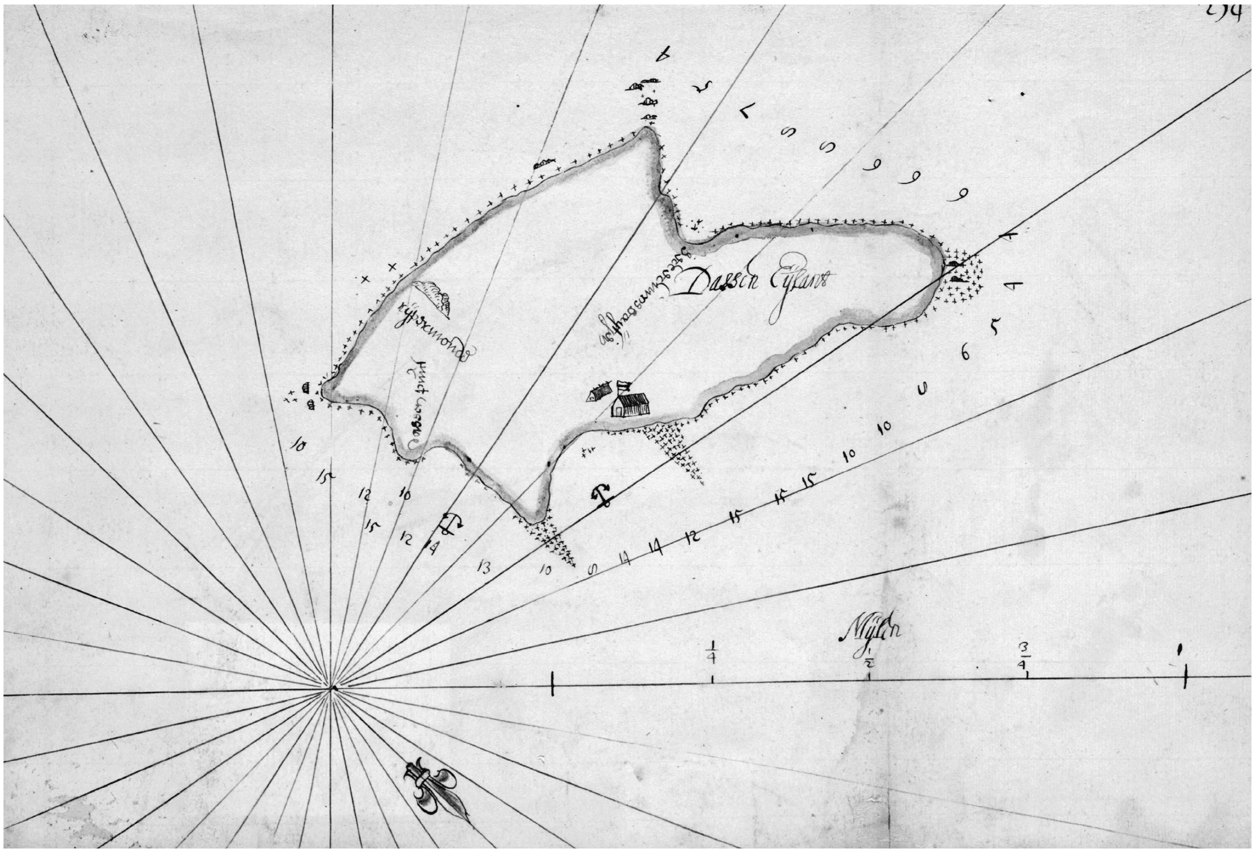

Figure 2.41. Map of Dassen Island, 1656. Nationaal Archief, 4. VEL 190, Caspar van Weede, attributed, 1656. Note the gabled stone shed St Elizabeth with a storage hut (*kapstylhuis*) behind where the train oil cookers were housed. See also Brommer et al 2009: Sheet 218 below. (Courtesy Nationaal Archief, Den Haag).

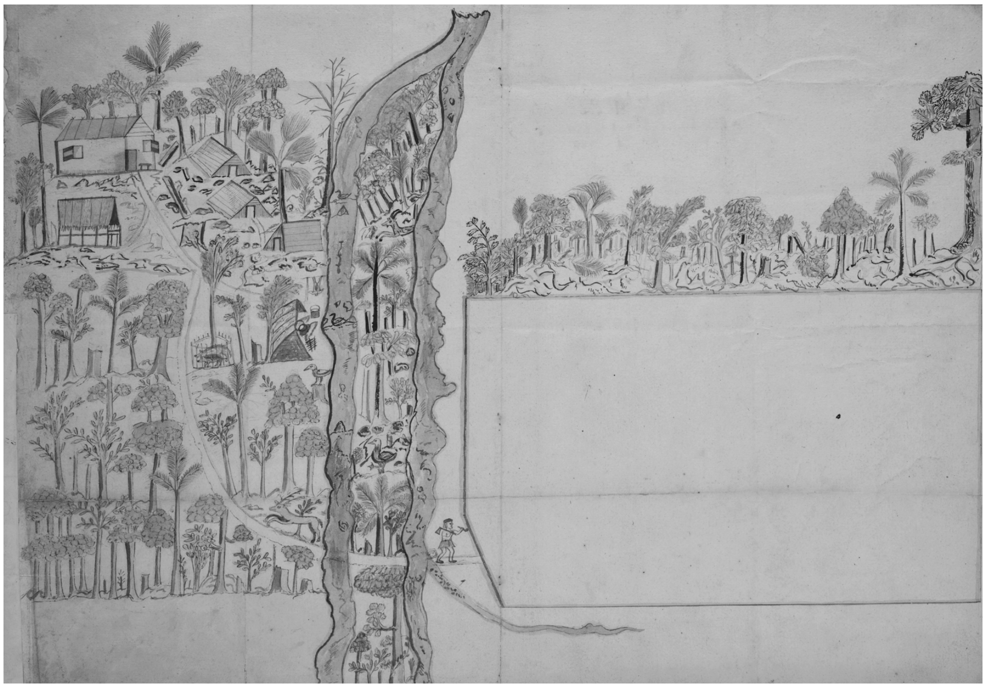

Figure 2.42. Map of the farmland at Vuile Bocht, Mauritius. Nationaal Archief 4. VEL 1132. Anonymous c. 1671. It shows houses, cottages, and coops for poultry that resemble *kapstylhuisies*. See also Brommer et al. 2009: Sheet 407 below. (Courtesy Nationaal Archief, Den Haag)

The third stone structure was a small (3.55 x 2.85 m) square enclosure called 'GCL' that lay just north of the fort (Figure 2.43). Its function is not known, and although its square shape resembles that of a reconstruction of a small redoubt near the Castle (Sleigh 1996: 46, 50; see Figure 2.36), GCL is far too small to have accommodated more than one person, standing up. It was apparently built on a heavy layer of burned wood; it might be the stone replacement of a platform or tower on which the site flag or insignia was based (Schrire 1995: 97; Schrire et al. 1993: 23).

The interpretation of Oudepost I as a VOC outpost has been challenged twice. The first is a serious opinion that comes from Hugh Fitchett, an architectural historian of some renown; the second comes from Cyril Hromnik, a scholar with strong views on the prehistoric Indian origins of South African culture (Fitchett 1996; 1998; Hromnik 1990).

Starting with Fitchett, he claims that the small fort at Oudepost was the earliest building on the site and that it was rapidly constructed by the French in 1666 (1996: 603-5). His argument is based on the belief that its plan is unlike other defensive structures of the Dutch at the Cape (Fitchett 1996: 603), that the rough construction suggests hasty work (ibid.: 604), and that it is marked as 'Fort François' on early 18th century maps (ibid.: 603). Fitchett concedes that if it were not built by the French, the fort might have been built by a non-commissioned officer of the VOC who knew nothing about Dutch military engineering (ibid.: 605). My response is that the architectural plan of the fort may be unique to the Cape, but that does not, in and of itself, make it French. Its seemingly irregular proportions do not signify ineptitude, because they conform to the basic rules of fortification design and resemble those mapped at Dutch fortifications at places like Maastricht and Oostende. Moreover, the Oudepost fort has identical fire lines for flanking to those found in the contemporary VOC outpost at the Rio de la Goa at Maputo, Mozambique, 1721-30 (Figures 2.44, 2.45; see Brommer et al. 2009: Sheets 357-369; Godée-Molsbergen and Visscher 1913: 47; Sleigh 1993: 679-716, for plans see 680-681; Van den Heuvel 1991: 2-3; Frans Westra 1996, pers. comm.). Fitchett's point about the mapping of Oudepost I as a French fort is certainly true (Kolben 1731a: facing p.1; Valentyn 1971: facing p.34). Oudepost I continued to be labeled 'French' during and long after its occupation by the VOC, but a careful perusal of sources suggests that the ascription comes more from a faulty memory of the 1666 French encounter than from the true history of the VOC post (Figure 2.46; see Schrire 1995: 78-79, 230-231). When all is said and done, the most powerful refutation of Fitchett's claims for a French presence at Oudepost comes from the analysis of the archaeological collections there, which reveals unambiguously that Oudepost—like all other Cape sites of this era, including the Castle (Klose 1997), Paradise (Hall et al. 1993), and Elsenburg (Hart and Halkett 1993)—is a VOC site.

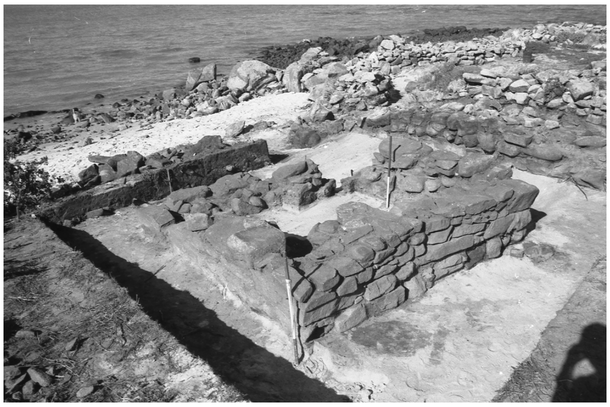

Figure 2.43. View of enigmatic stone enclosure, GCL, Oudepost I, Cape. Scale in 20 cm increments. (Photo C. Schrire 1987)

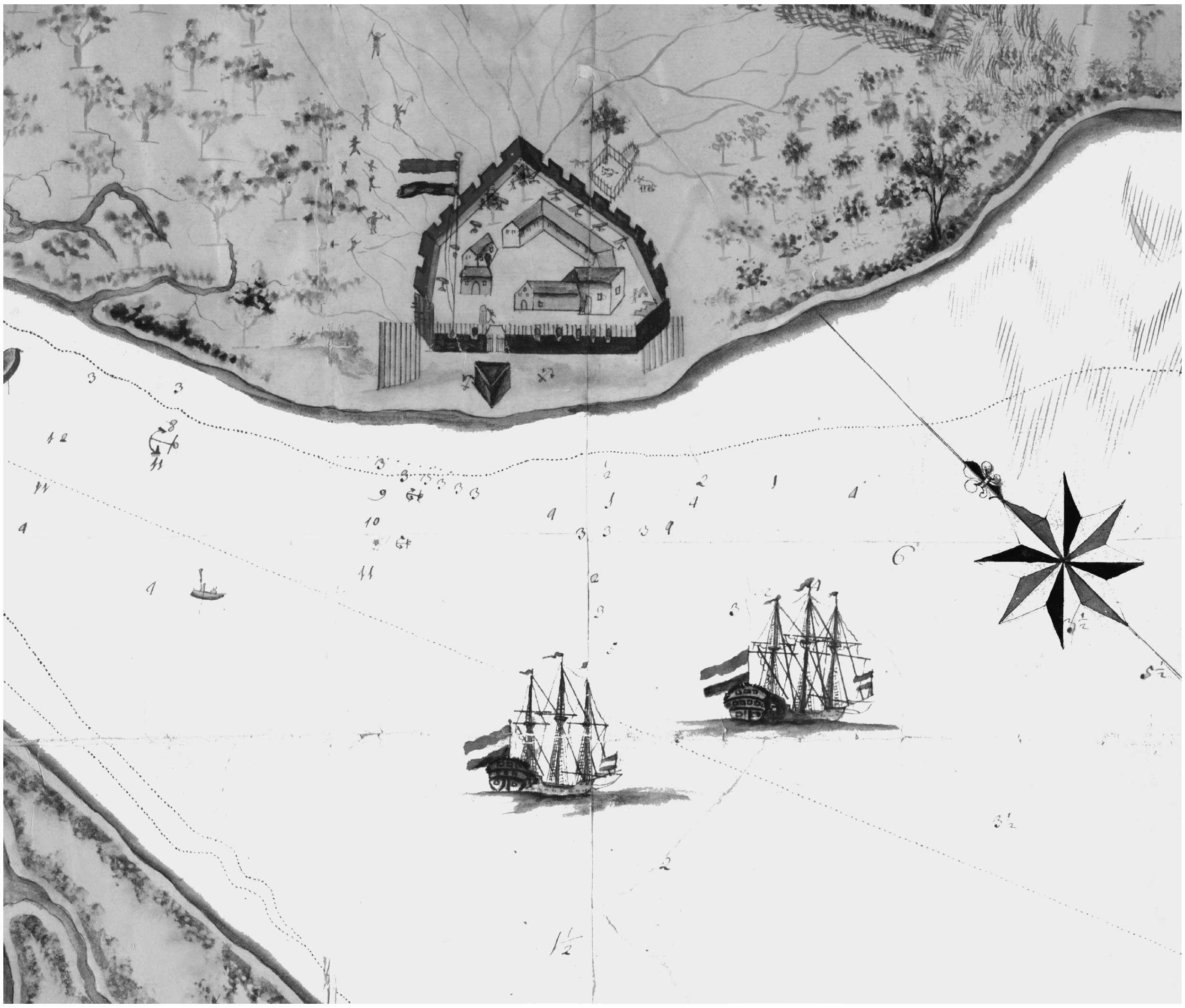

Figure 2.44. A cropped section of the Company's Post, Rio de la Goa, 1721. Nationaal Archief, 4. VEL 205. (Jacob de Bucquoij, attributed, 1721). See also Brommer et al. 2009: Sheet 357 below; Godée-Molsbergen & Visscher 1913: 47. (Courtesy Nationaal Archief, Den Haag)

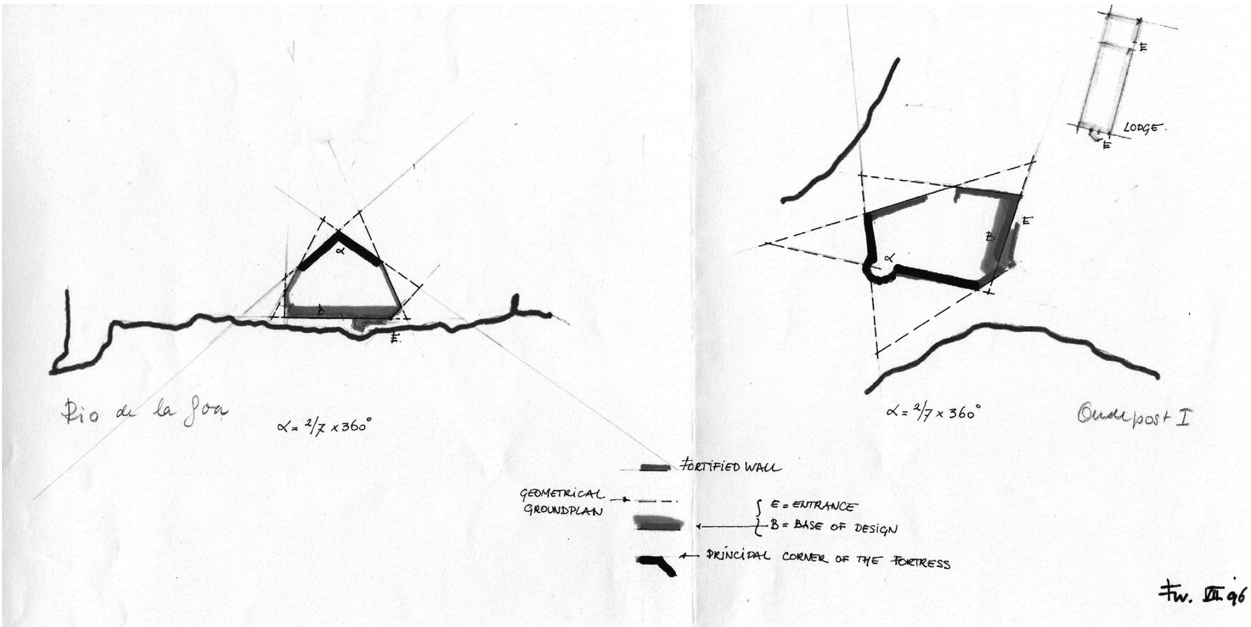
Rio de la Goa
α = 2/7 x 360°
E
b
α
LODGE
E
B
Oudepost I
α = 2/7 x 360°
FORTIFIED WALL
GEOMETRICAL GROUNDPLAN
E = ENTRANCE
B = BASE OF DESIGN
PRINCIPAL CORNER OF THE FORTRESS
Fw. VI 96

Figure 2.45. Sketch of VOC outposts at Oudepost I and Rio de la Goa, showing similarities in shapes and lines of fire. (Frans Westra 1996, pers. comm.)

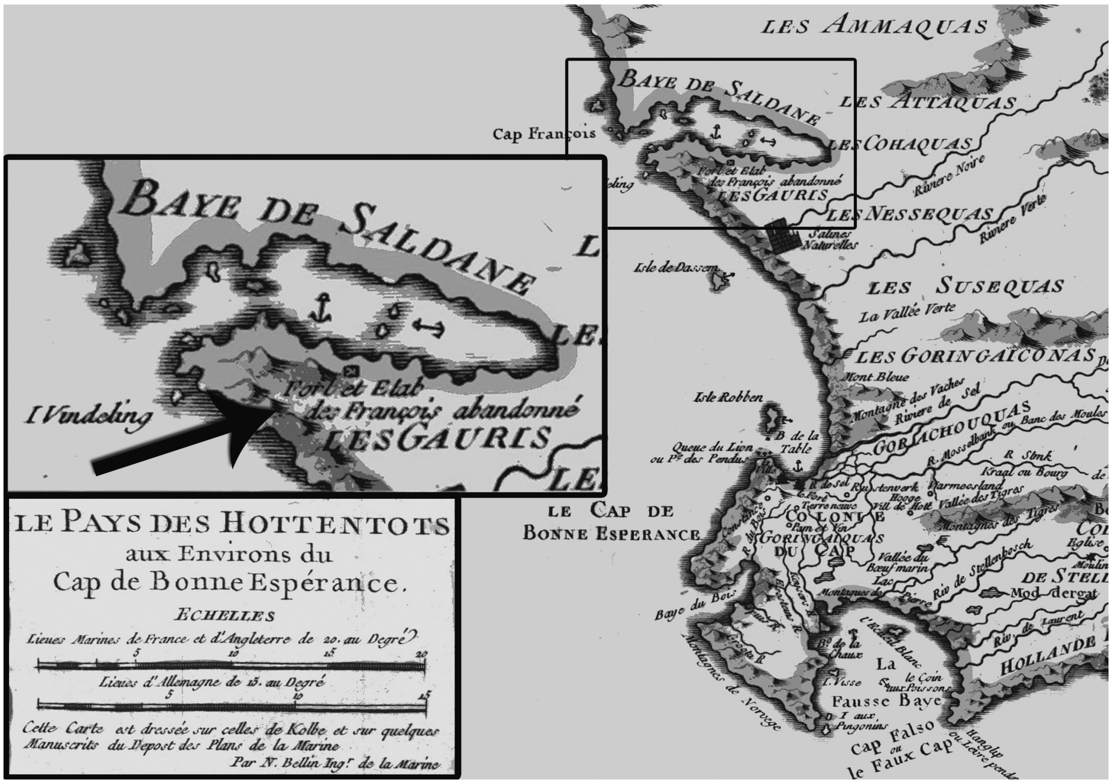
LES AMMAQUAS
BAYE DE SALDANE
Cap François
LES ATTAQUAS
LES COHAQUAS
Fort et Etab. des François abandonné
LES GAURIS
Riviere Noire
LES NESSEQUAS
Riviere Verte
Salines Naturelles
Isle de Dassen
LES SUSEQUAS
La Vallée Verte
LES GORINGAICONAS
Mont Bleue
Montagne des Vaches
Riviere de Sel
Isle Robben
GORACHOUQUAS
B. de la Table
Queue du Lion ou Pᵗ des Pendus
LE CAP DE BONNE ESPERANCE
COLONIE DU CAP
GORINGAIQUAS
DE STELL
Rio de Stellenbosch
Baye du Bois
HOLLANDE
La Fausse Baye
Cap Falso ou le Faux Cap
Montagnes de Norwege
I Vindeling
LE PAYS DES HOTTENTOTS aux Environs du Cap de Bonne Espérance.
ECHELLES
Lieues Marines de France et d'Angleterre de 20. au Degré
5 10 15 20
Lieues d'Allemagne de 15. au Degré
5 10 15
Cette Carte est dressée sur celles de Kolbe, et sur quelques Manuscrits du Depost des Plans de la Marine
Par N. Bellin Ingʳ. de la Marine

Figure 2.46. Portion of map of the southwest Cape, mistakenly showing a 'French fort' at the location of Oudepost. J. –N. Bellin [1757] after Valentyn [1726]. See Valentyn 1971, facing p. 34. (C. Schrire coll.)

Fitchett's claim that the lodge was built later than the fort is contradicted by pipe stem dating and other associated artifactual evidence (Schrire et al 1990; all chapters in this book). His theory is that the earliest lodge was not a *kapstylhuis* but a wooden shack and that the planks that were shipped out to build the post in 1669 were more likely to have been used to build timber-framed structures like the those on Dassen Island, Robben Island, and Hottentots Holland (Fitchett 1996: 605; Schrire 1995: 94-95; VOC 4004: 591v-592v). This is contradicted by the presence of an earlier stone foundation under the present lodge, which was much more likely to have supported stone rather than wooden walls (Schrire 1995: 98-99). My initial idea that the lodge had very low walls was based on my concern about the paucity of fallen stones alongside, but this can be put to rest by a glance at nearby holiday homes that apparently salvaged these for their construction. I now think that the lodge at Oudepost probably looked something like the stone and clay house called the 'shed, St Elizabeth' that was constructed on Dassen Island in 1654 (Figure 2.41; see Thom 1952: 272). This idea is supported by the recent excavation of a VOC stone lodge at Fort Frederik Hendrik that was built in Mauritius in 1698 during the Second Period of Dutch occupation there (1664-1710) and whose walls resemble those of the Oudepost lodge (Floore and Jayasena 2010: 325, 329 ff, 332, Figure 11). Today, I imagine a stone, gabled lodge at Oudepost whose entrances differed from the symmetry found in later mid-18th century Cape Dutch buildings and which might be classified as one of many such 'utilitarian structures of the VOC in the proto-Cape Dutch period' (Fitchett 1996: 604, 605). The image I have in mind was actually digitally constructed by Patricia Schwindinger in her award winning Henry Rutgers thesis at Rutgers University, 2011, and is given here as Appendix B. Finally, where the residues in the intertidal zone are concerned, Fitchett's claims that ships at Oudepost careened across the bay (1996: 604) needs to be modified in light of the archaeological residues lying as far as 40 m offshore from Oudepost, suggesting ships careening there as well.

The second challenge comes from Cyril Hromnik, who identified Oudepost I as a Portuguese hospital established by António de Saldanha in 1503 (1990: 30). When he visited the site in the late 1980s, Hromnik was unmoved by each and every argument offered regarding the material stamp of the VOC. An eminent historian of the Portuguese in southern Africa later dismantled Hromnik's contentions with considerable skill (Axelson 1991: 110).

Oudepost I (OPI): Site formation processes

For analytical purposes finds are grouped spatially in relation to the stone structures (fort, lodge, etc.) and temporally according to the sequence established in the analysis of pipe stems (Schrire et al. 1990). The excavated areas themselves

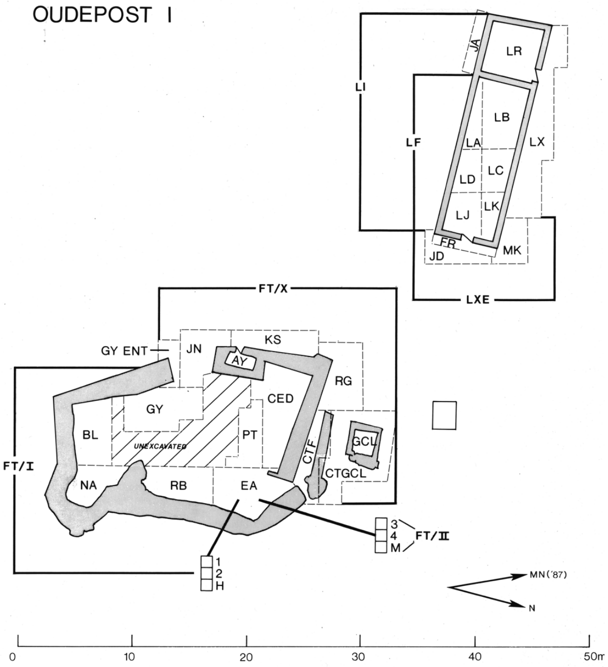

Figure 2.47. Plan of Oudepost I, Cape, showing excavated units and groupings. (C. Poggenpoel, del., C. Schrire)

are shown in Figure 2.47 (Schrire et al. 1990: 273) and further details about the grouping of units are listed in Appendix C. Estimates of the volume of material excavated were made to assess the relative density of clay pipes (Schrire et al. 1990: 282-283), but should be treated with some reservation because not all volumes of earth and fallen rocks were weighed or measured during the excavation.

A large number of finds have no reliable provenance and are therefore listed as 'DP' or 'Dump' and 'NP' for 'Non Provenanced.' These include the only burial from the site that we were unable to date due to the absence of stratigraphic clues and associated grave goods, and whose hunchbacked occupant could only be vaguely sourced as coming from a coastal region similar to both his burial place and his possible birthplace in the Netherlands (Schrire 1995: Sealy et al. 1995). The majority of the unprovenanced finds are due to taphonomic processes that have left us with a blurred record of the relative associations over time and space. Oudepost I stands on a headland open to rain and wind. The seaward wall of the fort is so lashed by waves during spring tides that once we removed the fallen rocks, the roughly paved floor of its circular southern enclosure collapsed (Figure 2.48). A construction sequence remained visible only in a few protected places, such as in the buried footings of an early wall in the rear room of the lodge and above and below stone

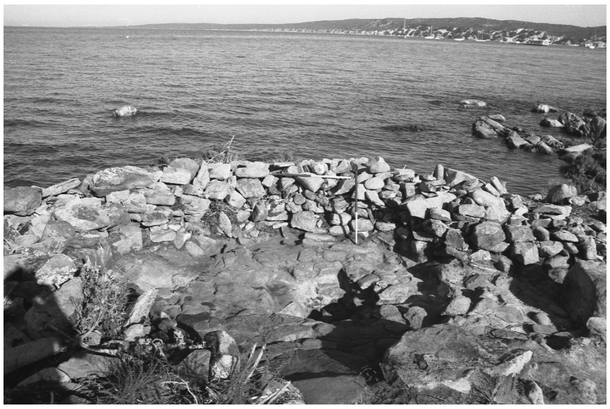

Figure 2.48. View of circular enclosure NA at Oudepost I, Cape, showing collapse of the paved floor due to tides. Scale in 20 cm increments. (Photo C. Schrire, 1987)

paving in two areas of the fort (Schrire et al. 1990: 274-275). Other processes include burrowing dune mole rats (Cruz-Uribe and Schrire, 1991), colonial dumping of primary residues into the sea (Schrire et al. 1993) and, most recently, depredations of bottle collectors, metal detectors, and treasure hunters (Green 1970: 93; Schrire et al. 1993: 25-30). These disturbances are patent in the present distribution of faunal remains and conjoined ceramics (Cruz and Schrire 1991; Heinrich 2010: 239; Schrire 1995: 107-110; Schrire et al. 1993).

Identifying taphonomic processes is one thing, but assessing their impact on the integrity of the collections is quite another. The surviving sequence of clay pipes remains sufficiently clear to suggest that post-depositional disturbances have not completely homogenized the original sequence. Although it might be difficult to attribute and defend the original position of one particular object, a collection may be safely attributed within the broad horizontal and vertical groupings that we have used in our analytical protocols (see Schrire et al. 1990: 298). When reading any of the tables relating to the distributions at Oudepost, one needs to be wary of simply counting numbers across the board because totals either relate to space (Fort, Lodge, Levels X, I, II), but never to both.

Oudepost I (OPI): Dating

Archival evidence dates the VOC occupation of Oudepost I from 1669 to 1732 with an occupational hiatus between 1673 and 1685 (Schrire 1990; 1995; Schrire et al. 1990; Schrire et al. 1993). The archaeological residues confirm the broad archival dates of occupancy and point unmistakably to VOC identity of its occupants (Cruz and Schrire 1991; Jordan 2000a, 2000b; Klose 1997; Schrire 1987, 1988, 1990, 1991, 1992, 1995; Schrire and Deacon 1989, 1990; Schrire et al. 1990; Schrire and Meltzer 1992; Schrire et al. 1993). The analysis of clay tobacco pipes provides a sequence for the entire land-based site, as well as a comparative date for the intertidal dump, DP. The dump was initially dated according to a small sample of pipes from units DP1 and DP2, suggesting that it accumulated during the early occupation of the post (Schrire et al. 1993: 30; Schrire 1995: 107-110). Since then, 368 clay pipe fragments from 15 excavated samples have been analyzed and amalgamated to produce an overall mean of 2.2581mm for the combined sample, which is larger and therefore apparently older than 2.20 mm mean land-based sample (Table 2.6; Appendix D; Duco 1982; Schrire et al. 1990: 293). In addition, an analysis of distinctive pipe fragments from DP, shows a predominance of 'D' and 'E' shapes dating from 1700-35, together with only one 'B-C' shaped bowl dating from 1675-90 (Duco 1982:111). Pipe stamps include two (Duco 1982: #532a, #653) not listed in Schrire et al. 1990: 295 (see Appendix D).

The pipe data, though interesting, are hardly the last word where dating is concerned. Absolute dates cannot be safely inferred from their means, and the relative dating, though useful for constructing an intra-site sequence, may be misleading where comparisons with other sites are concerned. Although there are a lot of 17th century ceramics at Oudepost I (Klose 2007: 81; Schrire et al. 1993: 29), there are relatively few equally old pipe stems here (see Table 2.2). Likewise, although the DP pipes stems fall into the older groups at the site (Tables 2.2, 2.6), this may not signify that offshore dumping occurred mainly in the earlier years of occupation, but rather that post-depositional sorting by tides selectively preserved thicker, older stems at the expense of thinner, younger ones (Schrire et al. 1990: 287, 290-291).

Table 2.6. Oudepost I: DP pipe stem bore analysis (oldest at bottom)

	Stem bores (mm)							**Total nos.**
	1.7	**2.0**	**2.2**	**2.5**	**2.7**	**3.0**	**3.2**	
Stems	14	58	122	72	25	2	5	298
Bowls* ID	5	8	12	3	-	-	1	29
Bowls* non ID	2	11	15	9	4	-	-	41
Total nos.	21	77	149	84	29	2	6	368
Mean								2.2581

*See also Appendix D.

Oudepost I (OPI): Analytical protocols

The Oudepost I collections have been affected by post-depositional taphonomic processes over time. Different parts of a single entity, whether a pot, cup, or bottle, often come from separate localities (fort, lodge) and/or different levels (I, II, etc.). Since we cannot therefore infer their primary context, the only solution is to relegate them to NP (non-provenanced) and to exclude them from the MNI and MNV counts. In addition, the DP material is treated as a separate unit in the analyses that follow. Although the pipe stems from the intertidal dump DP are larger, and hence older, than the site mean, for taphonomic reasons discussed previously, I am reluctant to group the DP collection with the oldest material from the site (Level II).

Taking all these findings into consideration, the Oudepost material is analyzed in various chapters in this book as follows :

1. Provenance known or Non-Provenanced (NP).
2. Spatial or horizontal provenance, as in the Fort (FT), Lodge (L), and Intertidal Dump (DP).
3. Temporal or vertical provenance based on the three-part sequence derived from analysis of clay pipes that runs from oldest to youngest, as Levels II, I, and X, with the intertidal dump (DP) added in as a separate unit (Schrire et al. 1990).
4. Direct comparisons of densities of material deposited in time and space should made with some reservation due to the difficulty of calculating areas and volumes in this rocky site. Although a greater area was excavated in the fort (249 m^2) than in the lodge (63.8 m^2), the volume removed in the lodge (84.5 m^3) exceeded that of the fort (69.2 m^3). Across the site, similar volumes were removed in Levels I and II (53.7 m^3 and 53.5 m^3 respectively), but the latest Level X contained only 41.1 m^3 (Schrire et al. 1990: 282-283).
5. The catalog of Oudepost provenience units is shown in Appendix C.

Elsenburg

Elsenburg: (ESB): History

Elsenburg was a VOC farm located in the western Cape, about 50 km east of Cape Town and 13 km north of Stellenbosch (Figure 2.1). At present it is the agricultural college of Stellenbosch University, whose core is a 17th century farm granted in 1698 as a 110 morgan estate by the VOC to their Secunde, Samuel Elsevier (Fransen and Cook 1980: 166-167; Guelke,1987; Kolben 1731b: 43; Schutte 1989: 304). Elsevier expanded his acreage to encompass several VOC stock farms, and made a dam and corn mill (Kolben 1731b: 43). His prosperity was cut short in 1707, when he was sent back home as a result of the burgher petition against the wealth and ostentation of the VOC Governor Willem Adriaan van der Stel (Fairbridge 1931: 138; Heinrich 2010: 183-192; Heinrich and Schrire 2011; Markell et al. 1995: 10; Mentzel 1921: 19; Valentyn 1971: 151).

The original house no longer stands and its location and form is a matter of dispute (Fagan 1984: 34-35; Hart and Halkett 1993:24). In 1752, the widowed owner married Martin Melck, a former German soldier in the VOC who farmed in Stellenbosch (De Bosdari 1953: 68). They became prominent members of Cape society, living well at Elsenburg. In 1761 the *werf* was rebuilt with a central U-shaped manor or *Herehuis*. New outbuildings included wine cellars, stables, slave quarters, smithies, and a school as well as an ornate and unique mill stream running along the front of the house. By 1774, the *werf* looked like a traditional village (Figure 2.49; see De Bosdari 1953: 68-69; Fagan 1984: 35; Fransen and Cook, 1980: 166-167; Hart and Halkett 1993: 3-5; Heinrich 2010; Walton 1974: 38).

Melck died in 1781 and the family sold the property in 1811. In 1898 it was incorporated into the University of Stellenbosch as their agricultural college. The *Herehuis* burned down around 1915-16 and was partially restored (De Bosdari 1953: 69; Fransen and Cook, 1980: 167; Hart and Halkett 1993: 3-4). In 1992-93, a new restoration was mounted during which archaeological deposits were disturbed and removed without supervision. Following this, the Archaeology Contracts Office was hired to do a combined Phase 1 and 2 investigation (Hart and Halkett 1993: 3).

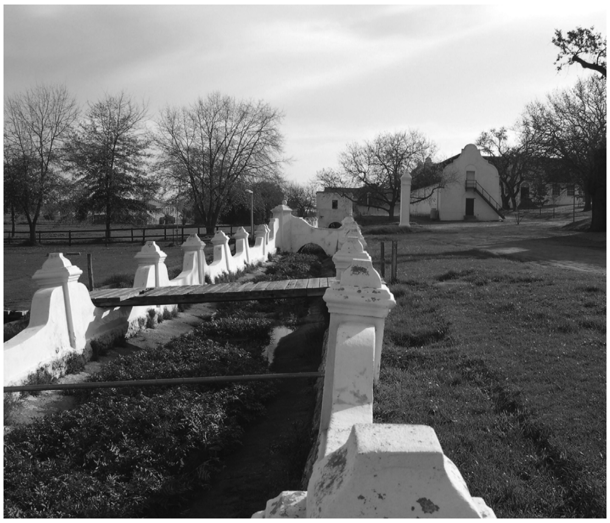

Figure 2.49. View of the *werf* at Elsenburg, showing the mill stream. (Photo A. Heinrich, 2008)

Stratigraphy (Figure 6-2)

The excavation in the kitchen area D had a clearly defined eight layer stratigraphy.

Layer 1 - Hard gritty clay. The original land surface.

Layer 2 - Dark brown deposit. (dbyc)

Layer 3 - Soil containing a charcoal fleck. (cf)

Layer 4 - Fill in wall trenches.

Layer 5 - Brick rubble layer.

Layer 6 - Loose brown gritty soil.

Layer 7 - Charcoal and ash.

Layer 8 - Loose brown soil.

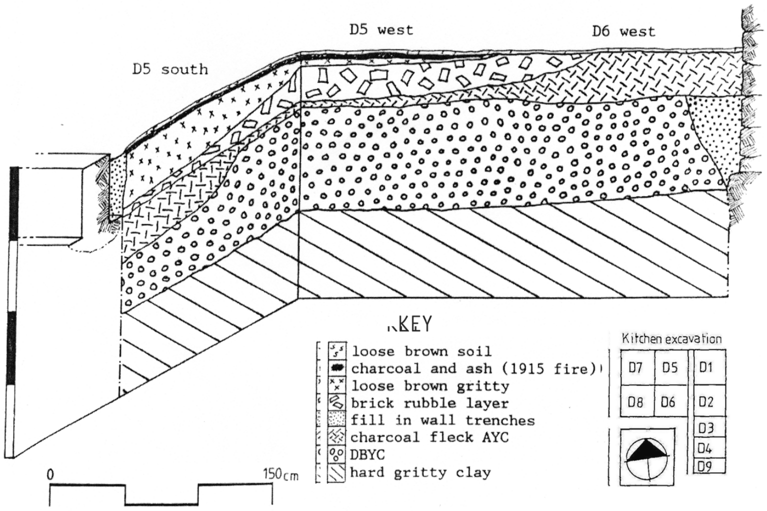
D5 west
D6 west
D5 south
KEY
loose brown soil
charcoal and ash (1915 fire)
loose brown gritty
brick rubble layer
fill in wall trenches
charcoal fleck AYC
DBYC
hard gritty clay
Kitchen excavation
D7
D5
D1
D8
D6
D2
D3
D4
D9
0
150cm

Figure 2.50. Diagrammatic section of stratigraphy at Elsenburg, showing the position of the main dump (DBYC). (Hart & Halkett 1993:11)

Elsenburg (ESB): Archaeological excavations

The chief focus of the Contracts Office was the excavation of a fill called the "Kitchen Dump" below the *Herehuis* kitchen. The dig covered 15 m^2 and extended to a depth of 1.2 m (Hart and Halkett 1993: 9). Seven stratigraphic layers were found beneath the loose top soil, the richest of which was an *in situ* deposit (Dump Below Yellow Clay or DBYC) that accumulated before 1761 (Figure 2.50; see Hart and Halkett 1993: 25-26) .

Elsenburg (ESB): Dating

Analysis of ceramics and pipe stems confirmed that the DBYC dated to the second quarter of the 18th century (Hart and Halkett 1993: 25-26). The archaeological material from the Kitchen Dump included pipes, ceramics, glass, and fauna. Around 3000 ceramic fragments from the DBYC level included mostly Asian wares from China and Japan together with a smattering of European ceramics (Hart and Halkett 1993: 29; Klose 1997: 123-135; Klose 2007). Good quality Chinese tea wares were dated to about 1730-40, and a variety of vases, jars, and knife handles, as well as Japanese chrysanthemum-shaped bowls, were also present. Most important for dating purposes, this collection marks the earliest appearance of *famille rose* wares at the Cape (Klose 2007: 42, 94). Although it might have been ascribed to average quality by European standards, here at the Cape, such a collection is rare and indicative of private trade and acquisition by prosperous and fashionable owners (Klose 1997: 132).

There are two analyses of pipe stems from DBYC. The first included 600 decorated stems and heels that showed a mean stem bore of 1.965 mm and was dated to sometime between 1725 and 1755 (Hart and Halkett 1993: 32-33). However, these estimates were generated with electronic calipers that have repeatedly been shown to produce anomalous results. A second analysis using drill bits sampled 2618 stems from two units in the Dump. The overall mean of c.2.05 mm is younger than our samples from the Van der Stel Moat and the Old Granary (F2) as well as the mean from Oudepost I (Table 2.2), but it overlaps with some of the latest samples from the Oudepost site (Schrire et al. 1990: 282; Yates et al. n.d.: 8, 25).

General Conclusions

This review presents specific details about five sites dating from the late 17th to the mid-18th century at the Castle, Oudepost I and Elsenburg (Schrire 2010). Relative dating of these sites using clay pipe stems shows that the oldest deposits come from the lower levels at the Old Granary (F2), followed by roughly contemporary ones at the Castle Moat and Oudepost and a later one from the Elsenburg farm. Estimates place these sites between the later 17th and mid-18th centuries (Schrire 2010).

The chapters that follow deal with ceramics, glass, metal goods, gunflints, personal adornments, and faunal remains. Most of these objects were imported via the seaborne empire operating between Europe and the East and help to characterize the VOC Cape as a node in the trade network of that time.

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Notes

1. Instead of providing map references to the Cape or Amsterdam archives, I often use the Brommer atlas, which provides what must be the most comprehensive current source of VOC maps, complete with annotations, cross-references, and provenances.
2. One Rhineland foot (Rh. ft) is 0.314 m (Hall et al. 1990: 30).

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CHAPTER 3

Faunal Analysis and the Development of the Meat Industry at the VOC Cape in the 17th and 18th Centuries

Adam Robert Heinrich and Carmel Schrire

Introduction

This chapter is a summary of the findings presented in a recent doctoral dissertation on the faunal remains from VOC sites at the Cape (Heinrich 2010). It starts with a review of the pre-colonial faunal record at the Cape, as well as the stock management and foodways patterns both there and in Europe, and is followed by analyses of faunal remains from five VOC sites (Figure 3.1).

The Cape was first settled in 1652 when the Dutch East India Company or the *Verenigde Oostindische Compagnie* (VOC) established a settlement on the beach in order to consolidate the provisioning of their ships trading between Europe and Asia. The settlement came after 155 years of European trade with the indigenous pastoral foragers whom the Dutch called 'Hottentots' and whom we today call the 'Khoekhoen,' hunters and herders with large numbers of sheep and cattle (Schrire 1995: 62). The encounter started with the first Portuguese navigators in 1487-88 (Raven-Hart 1967: 1-2) and actual trading kicked off in 1497 (ibid: 6). Once the settlement began in 1652, the VOC demand for stock soon outstripped supply and the Dutch decided to raise stock for themselves. Despite initial reluctance, the appetite for stock and pasturage forced the VOC settlement to spread north and east, deep into the heart of Khoekhoe territory. Sporadic hostilities broke out, and a series of wars erupted. By the time a devastating smallpox epidemic hit the land in 1713, many Europeans traders had become frontiersmen and former pastoral nomads had turned into landless, herdless thieves and dependants (Elphick 1977: 229-233; Elphick 1985: 233; Elphick and Malherbe 1989: 21-22; Guelke and Shell 1992: 823-824; Mentzel 1925: 36; Penn 1986: 65; 2005: 42; Ross 1998: 307; Heinrich and Schrire 2011).

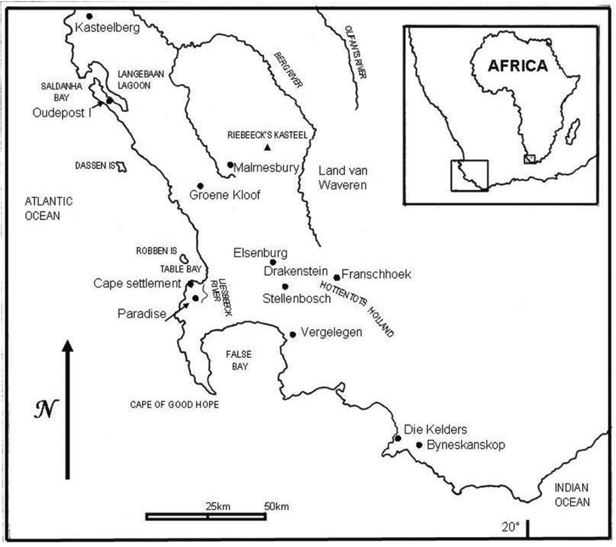

Kasteelberg
SALDANHA BAY
LANGEBAAN LAGOON
Oudepost I
BERG RIVER
OLIFANTS RIVER
AFRICA
RIEBEECK'S KASTEEL
Malmesbury
Land van Waveren
DASSEN IS
Groene Kloof
ATLANTIC OCEAN
ROBBEN IS
TABLE BAY
Elsenburg
Drakenstein
Franschhoek
Cape settlement
LIESBEECK RIVER
Stellenbosch
HOTTENTOTS HOLLAND
Paradise
Vergelegen
FALSE BAY
N
CAPE OF GOOD HOPE
Die Kelders
Byneskanskop
INDIAN OCEAN
25km
50km
20°

Figure 3.1. Map of the Cape, showing sites mentioned in this chapter.

Precolonial Pastoralists

The origin and age of domestic stock at the Cape is currently under review. Linguistic and archaeological evidence suggest that the stock originated in the Middle East or Northern Africa and moved south via East Africa, through Botswana and Namibia or through the Eastern Cape region (Bleek 1929; Boonzaier et al. 1996; Clutton-Brock 2000; Deacon and Deacon 1999; Elphick 1977, 1985; Elphick and Malherbe, 1989; Hanotte et al. 2002; Holl 1998; Klein 1986; Parkington 1984; Robertshaw 1979; Sadr 1998; Smith 1983, 1992,

Adam Heinrich and Carmel Schrire, "Faunal Analysis and the Development of the Meat Industry at the VOC Cape in the 17th and 18th Centuries" in *Historical Archaeology in South Africa: Material Culture of the Dutch East India Company at the Cape,* pp. 65–99. © 2014 Left Coast Press, Inc. All rights reserved.

1997, 1998, 2000, 2006; Stow 1905; Theal 1910; Westphal 1963; Wilmsen 1989). Domesticated sheep (*Ovis aries*) and possibly also cattle (*Bos taurus* or *indicus*) appeared at the Cape about 2000 years ago (Boonzaier et al. 1996: 29; Bousman 1998: 141-142; Clutton-Brock 2000: 32-33; Deacon and Deacon 1999: 181-182; Deacon et al. 1978; Henn et al. 2008; Holl 1998: 93; Horsburgh 2008; Klein 1986: 6-7; Klein and Cruz-Uribe 1989: 83; Orton et al. 2013; Sadr 1998: 101-104; Schweitzer 1979: 202-203; Schweitzer and Scott 1973: 547; Sealy and Yates 1994: 58-67; 1996: 109-110; Smith 1983: 79; Smith 2000: 226-236; Smith 2006: 2).

Archival and archaeological sources suggest that the herders led a transhumant existence at the Cape (Balasse and Ambrose 2002: 927-928; Boonzaier et al. 1996: 29; Klein and Cruz-Uribe 1989: 92; Elphick 1977: 58; Elphick 1985: 58; Elphick and Malherbe 1989: 8-10; Penn 1986: 63; Smith 2006: 13). Khoekhoen used their stock for meat, milk, hides, and defense, and historical observers note that cattle were only slaughtered on ceremonial occasions (Boonzaier et al. 1996: 41-48; Elphick 1977: 60-62; Elphick 1985: 60-62; Kolben 1731a: 125, 200; Valentyn 1973: 67, 97). Archaeological excavations at Kasteelberg (about 150 km north of the Cape) have very few cattle, but the sheep remains suggest that prehistoric pastoralists culled large numbers of lambs for food and to control the herd size (Klein 1986: 10; Klein and Cruz-Uribe 1989: 90-93; Smith 2006: 45). The historic Khoekhoen regarded their cattle as indicators of status and wealth that distinguished them from the stockless hunters, or 'San' and 'Bushmen' (Boonzaier et al. 1996: 42, 44-47; Elphick 1977: 57; 1985: 38, 57; Elphick and Malherbe 1989: 10; Kolben 1731a: 183, 260; Raven-Hart 1970: 113; Schrire 1995: 64; Valentyn 1973: 77). Breeding was not strictly controlled in that rams were allowed to run free with the ewes, a practice that often led to lambing twice a year due to their short gestation periods (Balasse and Ambrose 2002: 927; Balasse et al. 2003: 208; Elphick 1985: 58-59; Klein and Cruz-Uribe 1989: 90; Kolben 1731a: 168-169; 1731b: 64; Mentzel 1921: 56, 1944: 213). Although males and females were herded together and allowed to breed naturally, rams and bulls were often castrated and oxen were used for draught (Elphick 1985: 59; Kolben 1731a: 170). These practices were acceptable and familiar to the European colonists, coming as they did from colder climates where they were standard practices. What was foreign to the early Cape settlers was the fluctuating market caused by Khoekhoe transhumance and desire to accumulate capital: this hardened colonial resolve to manage their own herds (Robertson 1945a; Thom 1952).

Historical Observations of the Animals at the Cape

By the time the Dutch settled at the Cape in 1652, the Cape herders had been trading on the beach with mariners for about 155 years. Both parties had a smattering of each other's language, and a sense of what the market would bear. So, tempting though it might be to imagine the colonial accounts as portraits of a pre-colonial population, they are actually reports of an African society already enmeshed in the world of mercantile capitalism, and it is essential that generalizations about Khoekhoe pastoralists be seen in the light of this long-term interaction.

The journal kept by Jan van Riebeeck, the founder and first Commander of the Cape settlement, describes the settlement's initial impact on the indigenous wild and domesticated fauna (Robertson 1945a, 1945b, 1945c, 1945d; Thom 1936, 1952). Later witnesses include Peter Kolben, who visited the Cape between 1705 and 1712, and Otto F. Mentzel, who stayed there between 1733 and 1741 (Kolben 1731a; 1731b; Mentzel 1921, 1925, 1944). Additional VOC period accounts come from French, Dutch, German, and English visitors (Raven-Hart 1967; 1970; 1976; Strangman 1936; Valentyn 1971, 1973). Later British sources whose observations are pertinent to the earlier VOC era include Willem Stephanus van Ryneveld (Thom 1942), Lady Anne Barnard (Robinson et al.1994; Wilkens 1901), and Lady Duff Gordon (Fairbridge 1927). Finally, there are numerous modern syntheses (Elphick 1985; Guelke 1989; Robertson 1945a, 1945b, 1945c, 1945d; Ross 1989; Skead 1980, 1987) as well as archaeological analyses of VOC sites (Abrahams 1994, 1996; Abrahams-Willis 1998; Avery 1989; Cruz-Uribe and Schrire 1991; Schrire 1995; Schrire et al. 1993).

The origins of domesticated animals at the VOC Cape are listed in Table 3.1.

Domesticated Mammals

Sheep (Ovis aries)

Cape cattle provided greater amounts of meat and milk per animal than sheep, but the indigenous Khoekhoen prized them as symbols of wealth and status and would only willingly trade older or ill stock. They parted more freely with their more numerous sheep, so that mutton became the mainstay of the stock trade and the center of local Cape cuisine and provisioning (Elphick and Malherbe 1989: 10; Robertson 1945a: 5; Schrire 1995: 95, 141; Thom 1952: 105, 110).

The VOC rapidly established its own herds through trade, theft, confiscation, and hybridization. As early as 1657, VOC servants were contracted to become free farmers, and by the late 17th century, new towns such as Stellenbosch (1679) and Drakenstein (1687) were established in the prime grazing pastures beyond the Cape settlement itself (Elphick and Malherbe 1989: 12; Guelke 1989: 66; Mentzel 1944: 55-56, 67-72). The VOC-Khoekhoen stock trade was gradually replaced by commercial contracts where burghers delivered meat to the Cape. As measures of flock sizes, in 1681, over 1200 sheep belonged to a single burgher and in the early 18th century, over 6000 sheep were held by each of the three official burghers contracted by the VOC (Mentzel 1925: 56; Raven-Hart 1970: 278). Around this time, a burgher living

Table 3.1. Domesticated animals at the VOC Cape with the date of their introduction and place of origin

Animal	Date of Introduction	Origin	References
Cape sheep	Indigenous c.2000BP	Indigenous, East Africa	
Persian sheep	1652 (hybridized)	Persia	Mentzel 1944: 210
English sheep	1699-1707 restricted to Gov. A. van der Stel	England	Mentzel 1944: 210
Merino sheep	1789-1790	Spain	Lydekker 1912: 180; Mentzel 1944: 211; Thom 1942: 57
Cape cattle	Indigenous c.2000BP	Indigenous, East Africa	
European cattle	1652 (failed)	Netherlands	Mentzel 1921: 53
Friesland cattle	1780s	Netherlands	Thom 1942: 103-105
European pigs	1652	Netherlands	Mentzel 1921: 53; Robertson 1945a: 10; Thom 1952: 121, 123
Javan/Chinese pigs	Pre- 1712	Java/Batavia	Kolben 1731b: 117; Mentzel 1944: 213
Persian horses	1659-1660	Persia, Batavia/Far East	Kolben 1731b: 8, 128; Robertson 1945b: 82; Valentyn 1973: 119
Domestic fowl (ducks, geese, chickens)	1652	Netherlands	Mentzel 1921: 53; Robertson 1945a: 10; Thom 1952: 168

near the Castle, with a herd of 600 sheep and 100 cattle, was considered poor (Valentyn 1971: 75). Between 1700 and 1708, official figures show that 35,562 animals were added to the VOC holdings through trade, and stock theft swelled the numbers by an additional 2500 sheep in 1702 (Elphick and Malherbe 1989: 21). The colonial management systems differed from indigenous ones: wethers (castrated males) were the main source of mutton and were generally slaughtered between one and two years of age (Mentzel 1921: 56; 1944: 212). Indigenous and hybridized sheep from trade posts and frontier farms were grazed at Company posts like Groene Kloof in order to fatten them up (Cruz-Uribe and Schrire 1991: 97; Fouché 1914: 19; Kolben 1731b: 62; Mentzel 1925: 55, 56; 1944: 212; Ross 1989: 247, 253). Finally, the settlers rejected the indigenous practice of twice-annual lambing, by segregating the rams to produce only one lambing season per year. This resulted in stronger lambs and extended the longevity of the female breeding stock (Kolben 1731b: 64; Mentzel 1921: 56; 1944: 213).

Cape sheep were not used for fiber or horns, but were reared for meat and fat. Unlike the European woolly-haired sheep breeds, the Cape sheep had straighter, goat-like hair, similar to breeds from Asia and the Middle East and they occasionally had horns (Mentzel 1944: 211; Raven-Hart 1967: 15, 20, 23, 70, 82, 122, 152, 156). Hybrid sheep were described as being as "…fat and as big as donkeys…" (Raven-Hart 1970: 331) and were "…considerably larger than those in Europe…" (ibid.: 213). A late 17th century visitor mentioned that "…these sheep are as large as one of our one-year old cows…" (ibid.: 148). General consensus estimated the hybridized sheep provided c. 60-80 pounds of meat (Mentzel 1925: 56; Raven-Hart 1970: 297). Many said that the mutton was comparable to that of Europe (Kolben 1731b: 65; Mentzel 1925: 84, 101; Mentzel 1944: 252; Raven-Hart 1967: 18, 23; Strangman 1936: 134), though others demurred (Wilkens 1901: 74; Robinson et al. 1994: 182).

It is difficult to assess whether fat tails were present on indigenous sheep or introduced by VOC breeders. Many first-hand accounts record fat-tailed sheep present before the Dutch began hybridization at the Cape (Epstein 1971: 151; Lodewijcksz 1597; Raven-Hart 1967: 15, 18, 20, 26, 35, 40, 46, 58, 125, 128, 152, 156). Early travelers describe the tails of both indigenous and hybridized sheep as being heavy with fat (Boonzaier et al. 1996: 41; Deacon and Deacon 1999: 181; Epstein 1971: 151; Raven-Hart 1967: 15, 18, 20, 26, 35, 40, 46, 58, 125, 128, 152, 156; Raven-Hart 1970 160; Smith 1998: 151-152). Rock paintings across southern Africa often depict fat-tailed sheep but these are in undated contexts that might postdate European penetration (Deacon and Deacon 1999: 180; Jerardino 1999: 64-65; Manhire et al. 1986: 22-24; Smith 1983: 82). In contrast, an early 18th century observer stated that the indigenous Cape sheep had long, thin tails, and that the fatty tail only developed as a result of hybridization with Persian fat-tailed rams (Mentzel 1921: 56; Mentzel 1944: 211). Whatever its origin, tails ranged in weight from four to six pounds to over 15 pounds (Abrahams-Willis 1998:19; Botha 1970: 50, 86; Coetzee 1977: 65, 94; Kolben 1731b: 65; Mentzel 1921: 56; Mentzel 1925: 101;1941: 212; Kolben 1731b: 65; Raven-Hart 1970: 160) and the fat was considered a delicacy and a substitute for butter (Robinson et al. 1994: 182; Wilkens 1901: 74).

Cattle (Bos taurus)

Cattle were highly valued in Khoekhoe society for meat, milk, and draught, and as symbols of social status (Boonzaier et al. 1996: 44-47; Elphick and Malherbe 1989: 10; Kolben 1731a: 260). The VOC wanted cattle for their meat as well as as for draught because horses were too weak to pull ploughs and wagons over the demanding Cape terrain (Fouché 1914: 19, 39; Guelke 1989: 71; Kolben 1731b: 8, 73, 128; Mentzel 1925: 101; Robertson 1945b: 82; Valentyn 1973: 119). The Dutch originally contemplated getting all their cattle through outright theft, but being outnumbered by the local pastoralists and wary of war they settled for an outwardly regulated cattle trade (Thom 1952: 110). Figures reveal a judicious combination of strategies to build up the Dutch holdings: between 1700 and 1708 they amassed 8871 cattle during the legal trading and in 1702 they bagged 2000 more in a raid (Elphick and Malherbe 1989: 21). Despite these tactics, the VOC cattle holdings grew much more slowly than its sheep holdings. This was partly because the Khoekhoen themselves apparently always owned fewer cattle than sheep. Pre-colonial ratios in the archaeological collections from Kasteelberg range from one cow to eight, to 17 and to 21 sheep, depending on the locale (Klein and Cruz-Uribe 1989: 85; Smith 2006: 44, 29). Such disparities are reflected in the ratios for the colonial cattle trade, which are one cow to three or four sheep (Elphick 1985: 160), while ratios recorded in 1770 for a total VOC herd are about one cow to four sheep (Ross 1989: 253). These ratios are supported by archaeological evidence of colonial slaughter and consumption that comes in around one cow to seven sheep at Paradise and Oudepost I (Cruz-Uribe and Schrire 1991: 94, 96; Schrire 1995: 108-109; Schrire et al. 1993: 30). Not surprisingly therefore, cattle cost more than sheep. Sheep could be obtained for small amounts of coiled wire, tobacco, and arrack, but the VOC had to offer higher payments of copper plate, glass beads, and iron tools for cattle (Kolben 1731a: 262-263; Kolben 1731b: 65; Mentzel 1921: 53; Raven-Hart 1970: 103, 217; Robertson 1945b: 84; Schrire 1995: 52, 57-58, 111-112; Thom 1952).

The indigenous cattle were described as looking similar to the European breeds (Kolben 1731b: 64; Valentyn 1973: 119). A few observers who described them as having high humps on their backs (Fairbridge 1927: 38; Raven-Hart 1970: 213) were contradicted by Kolben (1731b: 64) and Mentzel (1944: 200), who claimed the cattle had no humps except when under the yoke. Like sheep, some cattle were described as having horns, while others did not (Mentzel 1921: 51; Mentzel 1944: 200; Raven-Hart 1970: 213). The indigenous cattle were smaller than European breeds; an ox would rarely provide more than 600 pounds of meat (Mentzel 1944: 202). While the mutton was considered to be high quality, it was a monotonous staple, and beef was considered a welcome break even though it was viewed as being inferior to the mutton by some (Mentzel 1925: 84, 101; Mentzel 1944: 203; Robinson 1994: 184). Efforts to hybridize indigenous cattle were not attempted until the end of VOC control in the 1780s (Cruz-Uribe and Schrire 1991: 96; Kolben 1731b: 64; Thom 1942: 103-105; Valentyn 1973: 119).

Documentary information on cattle husbandry is scarce. Cattle were used for meat and draught, and they would often have been reared to prime ages or older; veal consumption was rarely mentioned (Fouché 1914: 27; Mentzel 1925: 101; Robinson 1994: 184). Cows usually calved annually in the rainy season (Kolben 1731b: 64; Mentzel 1944: 203), and cattle were always pastured on the *veld*, thus requiring large tracts of land (Mentzel 1944: 56, 106). Documents suggest the indigenous Cape stock was crucial to the VOC for draught and ploughing (as already discussed). After the initial, failed shipment of European cattle in 1652, no more were imported until the waning years of the VOC in the 1780s. Major cattle importation and breeding efforts only started during the British era at the turn of the 19th century, partly to set up a dairy industry (Thom 1942: 103-111).

Pigs (Sus scrofa)

Domesticated European pigs were brought to the Cape with the first contingent of VOC settlers in 1652. They started to die within months of landing, and early records mention that few of the young survived more than a few days from birth (Robertson 1945b: 10; Thom 1952: 121, 123). Two varieties were present at the Cape: the typical Dutch breed and a Chinese breed that was described as having "dainty" meat and claws like a dog (Kolben 1731b: 117; Mentzel 1944: 213). Farmers kept them for personal consumption, and Mentzel specifies that they were generally slaughtered at six to eight weeks (1944: 213). In addition to fresh meat, salt pork was imported to the Cape, where it was highly prized (Abrahams 1996: 225-226; Abrahams-Willis 1998: 15-17; Coetzee 1977: 65-68, 99; Mentzel 1925: 89, 102-103; Mentzel 1944: 101, 107, 114; Raven-Hart 1976: 29). The durability of salt pork probably explains why more 'bacon' than fresh meat was dispatched to distant frontier posts such as Land van Waveren, Hottentots Holland, and Oudepost I at Saldanha Bay (Cruz-Uribe and Schrire 1991: 96; Schrire 1995: 108; VOC 4004: f. 591-592, 627, 633, 893-894; VOC 4008; VOC 4010: f. 547-549, 561, 568, 574, 580, 583, 587, 594, 600, 606, 611, 616, 625; VOC 4047: f. 533, 547, 554, 571, 583, 589) than to the nearby Robben Island outpost

(VOC 4010: f. 624-625). Archaeological finds of pig teeth and bones found in such places might therefore have emanated from local pigs or imported pork (Avery 1989: 114; Cruz-Uribe and Schrire 1991: 96; Schrire 1995: 108).

Horses (Equus sp.)

Domestic horses were imported to the Cape in 1659-1660 from Batavia (Kolben 1731b: 8, 128; Robertson 1945b: 82; Valentyn 1973: 119). These imported Persian breeds proved to be too small and weak, so the colonists had to rely on the indigenous oxen for the heavy draught work and ploughing (Cruz-Uribe and Schrire 1991: 96; Fouché 1914: 19, 39; Guelke 1989: 71; Kolben 1731b: 67, 73, 128; Mentzel 1925: 101; Thom 1952: 331). The Batavian horses were still being used by the Dutch after the British conquest of the settlement (Robinson 1994: 169). Despite their shortcomings where heavy duty work was concerned, these horses were useful for travel between farmsteads and for hunting in the frontier (Cruz-Uribe and Schrire 1991: 96; Mentzel 1944: 207). While bones are rarely found, the presence of horses may be inferred from spurs and frequent requests for fodder at sites such as Oudepost (Cruz-Uribe and Schrire 1991: 96).

Wild Fauna

The pre-colonial Cape abounded with diverse wild fauna (Avery and Underhill 1986; Cruz-Uribe 1988: 184; Cruz-Uribe and Schrire 1991: 93, 96; Robertson 1945a: 4; Skead 1980, 1987: 813-855; Thom 1952: 56-92). Wild game was highly prized in the early years of VOC settlement, and there was a progressive depredation through hunting, agriculture, and grazing, similar to that found throughout the colonial world (Crosby 1987: 275; Grove 1997: 126; Leibbrandt 1901:151; Raven-Hart 1970: 270; Mentzel 1925: 101; Mentzel 1944: 77, 102; Skead 1980: 395; Skead 1987: 813-855). In contrast to Stone Age hunting gear, guns, horses, and boats provided European colonists with easy access to indigenous game (Cruz-Uribe and Schrire 1991: 96; Skead 1987: 813-855). The depletion was so striking that the VOC issued a series of laws aimed at controlling the toll, laws that were constantly ignored especially in distant regions (Jeffreys 1944: 106; Mentzel 1925: 101). By 1685 game was recognizably scarce (Raven-Hart 1970: 270) and by the early 18th century, hunters had to travel 24 German or 120 English miles to find large herds (Mentzel 1925: 101; Mentzel 1944: 102; Skead 1987: 813-855).

Domestic Fowl

Geese, ducks (*Anas domesticus*), turkeys (*Meleagris gallopavo*), and chickens (*Gallus gallus*) were brought to the first settlement (Robertson 1945a: 10; Schrire 1995: 63; Thom 1952: 168). Fowl rearing was successful enough to supply fresh eggs to ships in the early years of settlement (Leibbrandt 1896: 14; Raven-Hart 1970: 76; Thom 1952: 121).

Fish

Fish were taken in great numbers with seine nets, then casked and salted (Robertson 1945a: 4). Fish was a popular food for slaves and soldiers (Dooling 1994: 23), though the use of salt fish as slave food might have stigmatized it as far as colonists were concerned (Armstrong and Worden 1989: 146; Hall 2000; Hall n.d. f: 2; Markell et al. 1995: 27; Sealy et al. 1993: 84, 89). Efforts have been made to distinguish warm Indian Ocean from cold Atlantic fish in archaeological contexts (Poggenpoel 1996: 122).

Secondary Products from Fauna

Animal management of sheep and cattle was mainly focused on meat. Meat provisioning was contracted out to official VOC slaughterers and free burgher herders (Elphick and Malherbe 1989: 11; Fouché 1914: xix, 85; Kolben 1731b: 6; Mentzel 1925: 55-56; Robertson 1945b: 79-80; Ross 1989: 247; Van der Merwe 1995: 1). Ships' meat was delivered both slaughtered and live. In the mid-18th century, the VOC contracts specified that an annual total of 390,000 lbs of butchered meat excluding that of live animals be sent on board the ships (Leibbrandt 1896: 6, 14; Mentzel 1921: 171; Mentzel 1925: 56). Butchery sites near the Castle of Good Hope include a shambles on the beach and jetty as well as a nearby slaughterhouse (Hall 2000: 28; Raven-Hart 1970: 202, 346). Butchery for ships' provisioning at Oudepost took place on the site and adjacent beach (Schrire 1995: 108-109; Schrire et al. 1993: 30).

Beyond meat, a dairy industry did not get fully under way until the late 1780s (Cruz-Uribe and Schrire 1991: 96; Thom 1942: 103-105). Sheeps' tails were used as a butter substitute, and their tallow was also used to make candles (Botha 1970: 87; Robinson 1973: 181; Wilkens 1901: 85). The indigenous and hybrid sheep had goat-like hair, and therefore wool did not become a marketable commodity until Spanish merino breeds were imported in 1789-90; this practice expanded during the British period (Lydekker 1912: 180; Mentzel 1944: 211; Ross 1989: 255; Thom 1942: 57). Hides were plentiful, purchased from the slaughterers and farmers for low prices (Mentzel 1925: 55). A 1678/9 map shows a tannery on the beach near the Castle, where leather was produced for use in making shoes, thongs, and straps (Mentzel 1944: 202; see also Western Cape Archives and Records Service Map 2/17; Raven-Hart 1970: 201).

Foodways at the Cape

Cape colonial diet was an amalgam of imported and local foods. Meat included local game and beef, local fish, hybridized sheep, imported pigs, and poultry, plus the occasional imported pickled meat. Domestic stock numbers rose over time and over-hunting depleted the game near the settlement (Cruz-Uribe and Schrire 1991: 96; Raven-Hart 1970: 270;

Mentzel 1925: 101; Mentzel 1944: 77, 102; Skead 1987: 813-855). Given the mild Cape climate, fresh meat was continually available, so the herders did not have to practice autumn culling, nor did they have to salt meat to preserve it over the winter. They pickled meat for two reasons: first to provision ships and outposts, and second to satisfy their own taste for a familiar, homeland product (Abrahams 1996: 225-226; Abrahams-Willis 1998: 15-17; Coetzee 1977: 65-68, 99; Mentzel 1925: 89, 102-104; Mentzel 1944: 101, 107, 114; Raven-Hart 1976: 29).

Social standing dictated the foodways of people here at the Cape, as elsewhere. The ruling class had celebratory roasts (Botha 1970: 57; Fouché 1914: 75) and banquets, while the poor folk interned in the Company hospital were served stewed mutton daily, except on Friday when beef stew was substituted (Mentzel 1921: 112). Imported Asian slaves produced a creolized cuisine called 'Cape Malay' using mutton, vegetables, and Asian spices (Abrahams-Willis 1998: 6-8; Botha 1970: 49; Coetzee 1977: 28, 44-47; Elphick and Malherbe 1989: 28-35; Elphick and Shell 1989: 225; see S. Jordan, this volume). Common folk ate this cuisine as a *'kerri-kerri,'* or curry stew made of spiced fish or mutton heart, liver and lungs, called 'pluck' and served on rice (Coetzee 1977: 65-66; Mentzel 1921: 112; Mentzel 1925: 55). Hilda Gerber (1959: 10) suggests that the creolization of the Cape diet was a later development that appeared only in the mid-18th century, long after Asian slaves first landed at the Cape.

The most surprising feature of the Cape diet is its absence of dairy products (as already discussed). There are rational reasons for this: Cape cattle were used mainly for draught, the cows produced little milk, the products that resulted were considered inferior to their European counterparts (Raven-Hart 1976: 30-31; Wilkens 1901: 74), and fat from the sheep's tail was used instead of butter (Abrahams-Willis 1998: 19; Botha 1970: 50, 86; Coetzee 1977: 65, 94; Kolben 1731b: 65; Mentzel 1921: 56; Mentzel 1925: 101; Robinson et al. 1994: 182; Wilkens 1901: 74). One might wonder why homesick colonists indulged their taste for salt meat but failed to produce much butter or cheese. The answer may lie in the costs of production: salt could be easily made on the shallow shores of the bay, whereas dairy products may have proved too costly for the economically-minded VOC to maintain in this relatively warm climate.

Analysis of Sites

This section describes faunal samples from five VOC sites. They were chosen to provide the best possible overview of VOC animal management and practice. Three collections come from the Castle at the main settlement (Van der Stel Moat (M90), Old Granary (F2), and Donkergat (DKG)), one from a Company outpost of Oudepost I (OPI), and one from a Company farm of Elsenburg (ESB) (Chapter 2; Figure 3.1). Detailed presentation of the methodology, results, tables, and conclusions can be found in Heinrich (2010). Color images of figures appear in the enclosed CD.

Castle: Van der Stel Moat (M90)

Introduction

The fauna from the Van der Stel Moat in the heart of the Cape settlement was excavated in 1990 by David Halkett as part of a major research program under the direction of Martin Hall of the Archaeology Department at the University of Cape Town (Figure 3.1; see Chapter 2). The excavation lay at the foot of Buren bastion to the north of the main entrance and extended over an area of about 33 m^2. Material was removed in a series of 2 m x 1 m units, named DE25, etc., within which were numerous stratigraphic layers named for their lithography, for example, "gbs" for grey-brown sand. These layers were then amalgamated into five basic levels, designated, from top to bottom, as Surface (SF), A1, A2, B, and C (see Chapter 2).

The faunal collection from the Moat is large, and a representative sample of the material was selected for analysis. It consists of columns from two excavation units (2 m x 1 m) that came from opposite ends of the 1990 excavation. Unit DE25 came from the southern end near the entrance of the Castle, whereas Unit FG31 came from the northern end, nearer the beach and the jetty (Table 3.2).

Table 3.2. Van der Stel Moat (M90): Column samples by NISP

Level	Square	Bone Sample (NISP)	Isolated Teeth (NISP)*	Total Sample (NISP)
SF**	FG 31	4	0	4
A1	FG 31	0	0	0
A2	FG 31	3186	231	3417
B	FG 31	707	29	736
C	FG 31	water table	water table	water table
SF**	DE 25	0	0	0
A1	DE 25	255	10	265
A2	DE 25	2373	148	2520
B	DE 25	484	14	498
C	DE 25	341	9	350

* Teeth embedded in bone were not counted as isolated teeth.

** Not included in this analysis due to admixture with later material.

Results

Taxonomy

Table 3.3 shows that the Moat samples are dominated by domestic stock. In the richest samples they constitute 58.2% of the MNI in FG31-A2 and 63.0% of the MNI in DE25-A2. Sheep (*Ovis aries*) outnumber cattle (*Bos taurus*) by MNI in ratios ranging from 14:1 in FG31-B to 5:1 in DE25-C. Pig (*Sus scrofa*) remains are present in small numbers throughout. Domesticated rabbits (*Oryctolagus* sp) appear in FG31-A2, FG31-B, and DE25-A2. Domestic dog (*Canis familiaris*) appears in Level A2 of both units and Level C of DE25.

Wild mammals, mainly small bovids, are relatively rare. The gray duiker (*Sylvicapra grimmia*) and steenbok (*Raphicerus campestris*) are the most common, and only one grysbok (*Raphicerus melanotis*) is present in FG31-A2. Other wild mammals include a porcupine (*Hystrix africae-australis*), a Cape fur seal (*Arctocephalus pusillus*), and a leopard (*Panthera pardus*). Elephant (Probiscidea) is represented by sawn ivory from possible commercial processing.

Non-mammalian components include birds, reptiles and fish. Birds include domestic and wild species. Domestic fowl are the most numerous and include chicken (*Gallus gallus*) and the domestic duck (*Anas domesticus*). Wild fowl include marine species like the Jackass penguin (*Spheniscus demersus*), and the Cape cormorant (*Phalacrocorax capensis*). The yellow-billed duck (*Anas erythrorhycha*) is the only wild bird represented by more than one individual. Lastly, an indeterminate pigeon or dove-like specimen (*Columbidae* ind) could not be identified further. Carapace and plastron fragments of angulate tortoises (*Chersina angulata*) are present throughout. Not part of this analysis, the fish recovered from the Moat have been analyzed elsewhere as an aggregated unit with an interior Castle site called F1 (Poggenpoel 1996: 122-123, 130). The most common taxa in Poggenpoel's aggregated Moat and F1 sample are the harder (*Liza richardsoni*), the white stumpnose (*Rhabdosargus globiceps*), the hottentot (*Pachymetopen blochii*), white steenbras (*Lithnognathus lithnognathus*), and the red roman (*Chrysoblephus laticeps*). Many of these fish were identified as schooling species netted in the warmer waters of False Bay. This conclusion seems counter-intuitive given the Castle's location on the very beach of the cooler Table Bay.

Ages

The Moat sheep were slaughtered at distinct ages. According to Payne's (1973) protocols for tooth wear stages, animals were mainly slaughtered between 18 months and six years of age: a peak is seen at 18 months to four years in the southern DE25, with the curve extending between 18 months and six years of age in northern FG31 (Payne 1973: 293-294). Postcranial epiphyseal fusion stages confirm slaughter in the 18 months-six years range (Silver 1969: 285-286). The postcranial epiphyses include a small number of unfused first and second phalange epiphyses (n=7 total from all levels), suggesting that some sheep were slaughtered before c.16 months of age (Silver 1969: 285-286). The rarer unfused distal humerus (n=2), proximal radius (n=1), and acetabulum (n=1) show that at least two of these lambs were slaughtered before reaching 10 months of age (Silver 1969: 285).

Turning to cattle, the dental wear shows that most cows were slaughtered when they were at least four to five years old. FG31-A2 contains an isolated adult fourth premolar that was just erupting coming from an animal that was only two to three years old (Silver 1969: 296). Postcranial data confirm that a small number were under three years of age, while others were older than four to five years at slaughter (Silver 1969: 285-286).

Pigs are rare and are present in the Moat as both adult and subadults. One erupted incisor in FG31-A2 came from an individual slaughtered when it was over a year old (Bull and Payne 1982: 56).

Skeletal Element Frequencies

Cranial and axial elements dominate the sheep specimens in the southern sample, whereas a more even representation of skeletal representation is represented in the northern one (Figures 3.2a, b). Sheep skeletal element profiles were developed for all units except DE25-A1, which rarely provides more than one MNI per element. The Levels in each respective Unit have similar profiles suggesting similar depositional processes. Visually, FG31-A2 and B from the Unit nearest to the jetty are dominated by cranial elements, whereas DE25, near the Castle entryway contains a more even representation from most skeletal regions, though these differences are not statistically significant (Level A2: Mann-Whitney U=629, *P*> 0.05; Level B: Mann-Whitney U=759.5, *P*> 0.05). All contexts lack distal foot elements, and the persistent presence of proximal elements suggests that the distal ones were removed elsewhere during skinning (Binford 1981: 136; Landon 1996: 67; Shaw 1997: 93-96). A cursory examination of the fauna from the area between the samples presented here shows an increased domination of axial elements towards FG31.

Cattle are represented by a variety of body parts, and show only a slight skewing towards the cranial abundance found in the sheep. FG31-A2 is the only context that contained a large sample size that could be identified as cattle (n=131 NISP), though a large proportion of the remains come from a highly fragmented, very large horn core. Pigs, though poorly represented, also include specimens from most skeletal regions.

Most of the wild mammal and bird bones are present in small numbers with parts from various skeletal regions. Miscellaneous finds include a lone penis bone of a seal and a single leopard mandible.

Table 3.3. Van der Stel Moat (M90): Taxonomic representations in the Moat samples. Relative mammal sizes follow Bunn 1982. Here 1a represents small mammals such as rodents and cats, 1b is mammals of similar size to dogs and small wild bovids, 2 is mammals of similar size to sheep or pigs, and 3 is mammals of similar size to cows and horses

Taxon	**Location**											
	FG31-A2		**FG31-B**		**DE25-A1**		**DE25-A2**		**DE25-B**		**DE25-C**	
	NISP	**MNI**	**NISP**	**MNI**	**NISP**	**MNI**	**NISP**	**MNI**	**NISP**	**MNI**	**NISP**	**MNI**
Bos taurus, cow	131	3	9	1			16	2	3	1	1	1
Ovis aries, sheep	1432	38	281	14	100	2	1512	20	267	8	146	5
Sus scrofa, pig	24	2	4	1	3	1	28	2	7	1	1	1
Oryctolagus sp., domestic rabbit	9	1	2	1			6	1				
Sylvicapra grimmia, gray duiker	13	2	2	1					1	1	6	1
Raphicerus campestris, steenbok	13	1					10	1	2	1		
Raphicerus melanotis, grysbok	4	1										
Raphicerus ind	1	1	4	1								
Hystrix africae-australis, porcupine							4	1				
Panthera pardus, leopard	1	1										
Proboscidea	5	1										
Canis familiaris, domestic dog	1	1					1	1			1	1
indet carnivora	1	1					1	1				
indet mammal 1a	1	1										
indet mammal 2	439	1	168	1	37	1	254	1	65	1	34	1
indet mammal 3	1	1							6	1		
indet artiodactyla 2	343	1	70	1	30	1	120	1	36	1	44	1
indet bovid 1b	5	1			3	2	4	1				
indet bovid 2	809	20	177	6	82	1	513	5	93	1	104	1
Chersina angulata, angulate tortoise	66	1	2	1	7	1	21	1	4	1	5	1
Arctocephalus pusillus, Cape fur seal							1	1				
Gallus gallus, chicken	63	7	9	2	2	1	12	2	9	1	7	1
Spheniscus demersus, Jackass penguin	3	1										
Phalacrocorax capensis, Cape cormorant	1	1										
Anas domesticus, domestic duck	37	5	8	3	1	1	13	2			1	1
Columbidae ind	1	1										
Anas erythrorhyncha, yellow-billed duck	10	2					4	2	5	1		
indet large bird	3	1										
Total	**3417**	**97**	**736**	**33**	**265**	**11**	**2520**	**45**	**498**	**19**	**350**	**15**

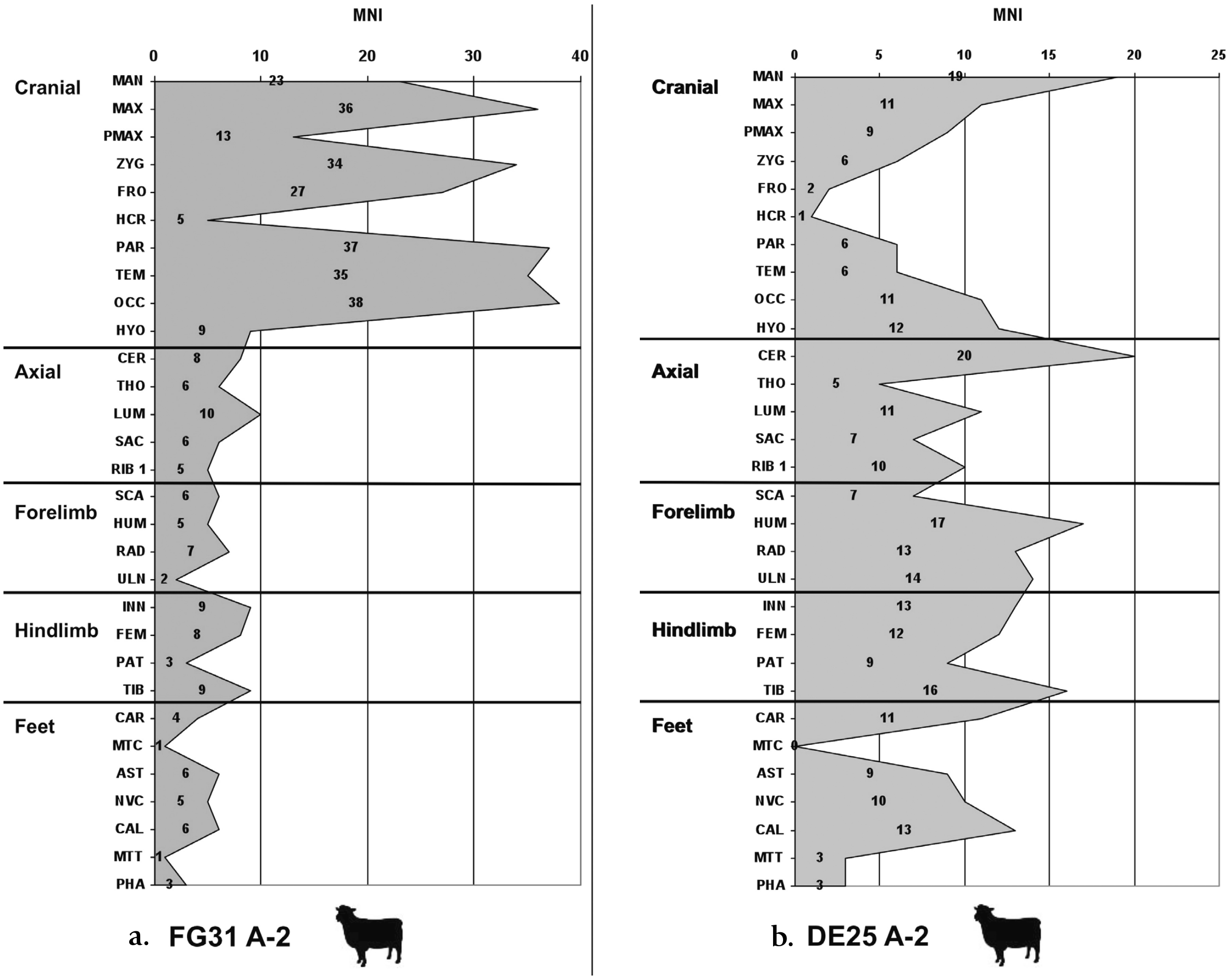


Figure 3.2. Van der Stel Moat (M90): Skeletal element frequencies for sheep from (a) the northern FG31-A2 and (b) the southern DE25-A2 column samples.

Sheep Sex

Although horn cores are used in other contexts to infer sex, this approach cannot be applied at the Cape where an 18th century account says the horned male and female sheep were both present there (Albarella 1995: 700-701; Mentzel 1944: 211). Since no sex frequency differences could be identified between Moat Levels or Columns, all measurable sheep acetabulae from the entire Moat were aggregated to produce a larger sample. Although the male and female measurement ranges overlap, as defined by Greenfield's (2002) known-sex studies, the Moat collection seems to include females and males, with a skewing towards the male end of the range (Figure 3.3). The male end of the range may reflect wethers.

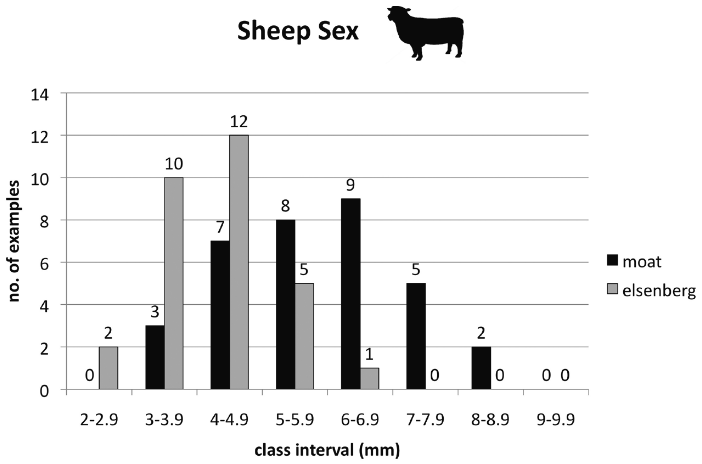


Figure 3.3. Van der Stel Moat (M90): Comparison of Moat and Elsenburg sheep sex as determined by medial acetabular measurements.

Taphonomy

Preservation

The bone fragments from the Moat are characterized by good preservation, large fragment sizes, minor root etching, rare carnivore and abrasion damage, and articulated specimens. Taken together, the condition of the bone collection suggests that the Moat was filled in a series of quick, if episodic, events.

The bone is very well preserved in both samples. Fragments are larger than those found in other Castle and Cape locales like the Old Granary (F2) and Elsenburg, where the assemblages were heavily modified by trampling and carnivores (as discussed later in this chapter). Bone surfaces are very well preserved in the Moat collection, which allowed for detailed observation of taphonomic traces that modify bone surfaces (Blumenschine et al. 1996). The frequency of root etching decreases from the top to the bottom of each unit, suggesting that the Moat was filled quickly before significant plant growth could develop. Magnified analysis of bone surfaces reveals minimal carnivore damage with 0.8% tooth marked fragments in FG31-A2 and 3.3% in DE25-A2. Such marks as are present were probably made by domestic dogs, because wild carnivores were frequently killed if they ventured near a settlement (Cruz-Uribe and Schrire 1991: 95; Mentzel 1944: 244-245; Skead 1980: 84-86, 123). The minor role of carnivores in the bone accumulations is confirmed by the fact that both size 2 and size 3 mammals are characterized by relatively complete long bone shaft cylinders (31-49% for size 2 and 20-80% for size 3 long bones) as well as low epiphysis to shaft ratios (2.0-4.9 for size 2 and 1.0-5.5 for size 3 long bones), suggesting that scavengers had not crushed bones for marrow nor had they selectively deleted the spongy, grease-laden, articular ends.

Abrasion is also rare, and mainly visible only on size 2 bone fragments (1.4% in sample FG31-A2, 0.0% in FG31-B, 0.3% in DE25-A2, and 0.4% in DE25-B), but the invisibility of damage on size 3 bone fragments may be due to the low representation of larger animals in the collection. The abrasion observed on the Moat bone fragments may be due to trampling or, more likely, due to bones being dumped alongside construction rubble. Articulated bones were observed during excavation and articulated joints, including ankles and vertebrae, concreted with ashy sediments, were still present in the curated collections. This suggests that these bones were deposited while they still contained soft tissue, and that they were buried quickly before carnivore scavenging or trampling could occur (Halkett 1990: 15, 17).

Butchery

Chop marks predominate, ranging from 12.5% of bone fragments in sample FG31-B to 27.5% in sample DE25-B, and together with cut marks, they appear in predictable locations such as at major limb joints, and on vertebrae, ribs and crania (Table 3.4). Chopping removed feet, and separated upper and lower limb segments and limbs from the axial portion of the carcass. Vertebral columns were sectioned (cervical, thoracic, lumbar), and were then chopped sagittally to divide the carcass into halves and the ribs into smaller, regular-sized pieces. Vertebral halves could not be matched, either because the corresponding halves are absent or buried elsewhere in the Moat. Skulls were sagittally chopped through the occipital, parietal, and occasionally, the frontal bones, and again at the symphyses of the mandibles and premaxillae, to divide the head into two halves. Proximal portions of metapodials often have chop marks through the proximal shaft, aimed at separating the lower leg from the carcass during hide removal (Binford 1981: 136; Landon 1996: 67; Shaw 1997: 93-96).

Cut and scrape marks are rarer and appear mostly at the major muscle attachments on the femur, but they are seldom found on other limb bones. Lower limb bones such as tibiae, radii, and metapodials contain horizontal cut marks likely created while cutting the hide during skinning (Binford 1981: 136; Landon 1996: 67; Shaw 1997: 93-96). Other skinning marks are inferred from patches of short cut marks located posterior to the orbits on the frontal bones. Cut marks on the medial surface of the mandibles posterior to the symphysis and on hyoid bone fragments (n=9 NISP in FG31-A2, n=7 NISP in DE25-A2) were aimed at tongue removal (Armitage 2004).

Context	Burning		Chopping		Cutting		Scraping	
	Nos.	%	Nos.	%	Nos.	%	Nos.	%
FG31-A2	10	0.31	468	14.69	220	6.91	27	0.85
FG31-B	0	0.00	88	12.45	48	6.79	8	1.13
DE25-A1	0	0.00	41	16.08	5	1.96	3	1.18
DE25-A2	8	0.34	636	26.80	40	1.69	0	0.00
DE25-B	3	0.62	133	27.48	5	1.03	1	0.21
DE25-C	4	1.17	80	23.46	7	2.05	0	0.00

Table 3.4. Van der Stel Moat (M90): Frequencies of butchery and burning

Cooking

Cooking residues are rare in the Moat samples (Table 3.4). The burnt bones in the Moat are mainly calcined, suggesting intense exposure to fire, but a few fragments are also charred. A charred duiker femur fragment in DE25-C suggests that wild game was roasted.

Discussion

The Moat fauna comes from a rapidly filled deposit. A large proportion of the collection—most clearly seen in the northern sample—is dominated by non-meaty elements with abundant signs of primary butchery and processing, meaning it probably emanated from the nearby slaughter yards. Conversely, some of the bones, especially those in the southern sample, which are represented by meatier elements and a few burned bones, may have emanated from kitchens in the adjacent Castle.

Taxonomic analysis shows the presence of domesticated and wild fauna. The only collections large enough for detailed analysis are sheep and cattle. Sheep dominated over cattle, exceeding the 17th and 18th century 'living ratios' of the stock obtained through trade and breeding (Elphick 1985: 154-170; Elphick and Malherbe 1989: 21; Ross 1989: 251-253), as well as the ratios reported from other VOC period archaeological sites (Avery 1989: 115; Avery 1992: 1; Cruz-Uribe and Schrire 1991: 96; Hart and Halkett 1993: 65). The predominance of sheep in this particular context probably relates to episodic ships' provisioning. At the founding of the Cape settlement in 1652, it was intended that each calling ship would receive eight cattle and eight sheep, but sheep were always more plentiful than cattle in the Dutch holdings (Elphick 1985: 152; Elphick and Malherbe 1989: 21; Ross 1989: 251-254). A decade later, sheep slaughtering had grown nine-fold and "By 1683 deliveries of sheep had risen to the point where many ships were given a hundred each, and few got less than thirty: the quota was now close to one sheep for every four to five sailors on board" (Elphick 1985: 153; see also Raven-Hart 1970: 202). Mentzel recorded that the VOC required a total of 390,000 pounds of slaughtered meat annually for the ships, with much of this being mutton (1925: 56).

Taphonomic investigation shows rapid accumulation of residues in the Moat. Butchery evidence shows that carcasses were divided into major anatomical segments before reaching the kitchen or preserving barrels. This interpretation is consistent with numerous chop marks as opposed to cut and scrape marks that might have eventuated when meat was removed after stewing and carving. If sawn is equivalent to chopped bone, the Moat fauna contrasts with the finds from the terrestrial excavation at Oudepost I, where equal numbers of cut and sawn, and more knife-marked fragments signify on-site butchery and cooking, and ultimately consumption (Cruz-Uribe and Schrire 1991: 100). Primary butchery is confirmed by lack of burned bone from roasting meat on the bone (Abrahams-Willis 1998: 25; Coetzee 1977: 92, 94). Again, this contrasts with the situation at Oudepost I, where burned bones that signify roasting were numerous (Cruz-Uribe and Schrire 1991: 108).

The abundance of less meaty axial elements, the primary butchery, and the lack of cooking evidence in a dump near the beach all suggest that most of the meat was never intended for local markets or kitchens, but for ships. This is confirmed by the high frequency of skeletal elements that are the inverse of shipwreck cargoes. The Moat is dominated by axial and cranial elements as opposed to meatier elements such as the limbs and lumbar vertebrae found on ships (Armitage 2004: 6; English 1990: 65-67; Green 1977: 244-246; Heinrich 2002: 262; Mentzel 1925: 103). This pattern is present in the beef bones on the VOC wreck, *Vergulde Draeck* (1656), which was provisioned at the Cape, and also at a provisioned 17th century Dutch outpost at Smeerenburg, Spitsbergen, where head and feet elements were completely absent, and bones from upper limbs, ribs, and lumbar vertebrae signify imported pickled meat (Green 1977: 244-246; Van Wijngaarden-Bakker 1984: 200-202). The evidence of tongue removal in the Moat collection is echoed in hyoid bone fragments from historic shipwrecks, suggesting preserved tongues (Armitage 2004: 6).

Some faunal remains were clearly butchered for local consumption. Sheep crania were apparently split for brains that were never pickled for shipment but were part of a European culinary tradition imported to the Cape where "the eyes, brains, and tongue were the choicest fare" (Mennell 1985, i; Coetzee 1977: 65-66). Finally, wild mammals are rare and were probably consumed locally (Cruz-Uribe and Schrire 1991: 95; Mentzel 1925: 101). By the time deposition in the Moat ended, wild bovids were so rarely encountered near the settlement that hunting was strictly restricted for events like the Governor's table (Cruz-Uribe and Schrire 1991: 95; Kolben 1731b: 34; Mentzel 1921: 61; Mentzel 1925: 100-101; Mentzel 1944: 102; Raven-Hart 1970: 270; Skead 1987: 813-855). The porcupine, leopard, and birds were likely consumed locally, especially because birds destined for ships would not have left bones behind (Mentzel 1925: 101; Thom 1952: 59, 84, 229, 297, 303). There is no evidence of fish processing for shipment here, though fish were often salted and shipped to the Cape from nearby locales and fed to VOC servants, soldiers, and slaves (Armstrong and Worden 1989: 146; Dooling 1994: 23; Hall 1992: 394; Hall n.d. f: 2, 17; Markell et al. 1995: 27; Sealy et al. 1993: 84, 89). From Poggenpoel's analysis, it is unclear if the fish found in the Moat were for local consumption or sun dried or salted for provisioning (1996: 117-131). His discussion focuses mainly on the taxonomically diagnostic cranial bones or fin spines that were cut off and removed before further processing such as cooking, drying, or salting. Some haemal spines are noted, though interpretations do not go further to clarify if the fish could have been eaten at the Castle or on a ship.

Turning to herd management, the Moat residues accumulated at a time when VOC stock was pastured near the Castle. The Moat sheep were mainly slaughtered when they were reaching their maximum meat yield, and in this respect they are similar to those found in other Castle sites (as discussed later in this chapter) and nearby town refuse heaps like the Parade site (Abrahams 1996: 244; Cruz-Uribe and Schrire 1991: 99) as well as outposts at Paradise (Avery 1989: 115; Hall et al. 1993: 52). The age profiles from the Moat contrast with those from Oudepost I, where sheep varied more widely in their ages at slaughter (Cruz-Uribe and Schrire 1991: 98). In addition, the Moat sheep were generally younger than those from Elsenburg, which confirms an 18th century documentary source claiming that sheep were delivered to the settlement after the animals had reached optimal meat yields (Mentzel 1944: 212).

Sex ratios of the Moat sheep suggests a predominance of males, which could be mostly wethers since only a few rams were needed for breeding (Mentzel 1944: 103). Finally, the Moat fauna revealed evidence of hide processing in strategic cut marks on distal limb elements and crania (Binford 1981: 136; Landon 1996: 67; Shaw 1997: 93-96). Large scale hide production was done near the Moat, and a tannery is mapped in 1678/9 (reprinted in Raven-Hart 1970: 201).

Castle: Old Granary (F2)

Introduction

The Old Granary (also called F2) is a vaulted chamber located on the southeast side of the Kat wall of the Castle (Figure 3.1; see Chapter 2). The floor was excavated between April 29 and September 9, 1988, by the UCT Archaeology Contracts Office under the direction of David Halkett. Field notes include both his own annotations and those of the students on his team (Halkett 1988a), as well as an amalgam of all notes by the director of operations (Hall 1988). The excavators cleaned up a recent construction trench excavated at the east end and then dug two small tests, reaching the base of the historical residues at 2.25 m below the surface, and the underlying pre-colonial deposit c. 2.75 m deep. In addition, there was a widespread removal of surface deposits (Hall n.d. b: 6). The site was dug in a one meter grid, and amalgamated into seven consecutive occupational Phases, named 1-7 and dating from pre-1685-91 to the mid-18th century (Hall n.d. b: 1).

A brief overview of the sedimentology is warranted in order to clarify the nature of the Old Granary (F2) deposits. The stratigraphy was presented as seven aggregated Phases (Gribble 1988: 29-36; Hall n.d. b: 7-8; see Schrire, chapter 2 this volume). Site photographs show that the more discrete units were comprised of parallel and slightly sub-parallel bedding planes of relatively uniform thickness across the layers' extents, suggesting they were placed as filling efforts to level the ground surface (Waters 1992: 34). Although the discrete stratigraphic units often extended across broad lengths, they were lens-shaped and were rarely continuous across the entire Granary structure, further suggesting intermittent fills (Hall n.d. b: 3). Stratigraphic breaks were abrupt, suggesting that they were not exposed long enough for characteristically gradated soil profiles to develop between depositional episodes (Schiffer 1987: 200-201; Waters 1992: 40). Successive sediment units were repeatedly reported to be variable in thickness, inclusions, and color, indicating that they were fills brought into the Old Granary from various sources and are not the result of continuous occupation of the structure. Occasional, compacted surfaces show that ground raisings were episodic so that the surface was compacted by exposure or trampling (Pyddoke 1961: 112; Schiffer 1987: 205). After introduced fills were leveled, they would settle over time, which would have then required further dumping episodes to raise the ground levels.

Up until now, the accepted interpretation of the residues in F2 was that they were deposited by slaves, and they represent the diet, culture, and resistance of the underclass at the colonial Cape (Hall n.d. e: 3; Hall 1992: 390; Hall 1999: 196; Hall 2008: 128-130). Specific evidence for occupational debris of slaves included fish remains, pits or hidey holes equivalent to Virginian root cellars, and fragments of fine porcelain stolen by slaves. These findings are all challenged in Chapter 2 (see Schrire, this volume). Stratigraphic evidence suggests that the F2 deposits are not primary ones that reflect the behavior of its occupants, but a series of secondary fills dumped there to try and raise the floor above the water table. So-called 'living floors' made up of slates, roof tiles, and masonry, together with the thin, consolidated lenses, probably represent episodic dumping (Waters 1992: 34). The pits may in fact have been post holes that housed scaffolding used to build the vaulted roof (Halkett 2002, pers. comm.). Finally, the analysis of ceramics shows an abundance of small fragments with very few cross mends that are consistent with secondary deposition (Klose 1997: 113, 115, 120).

Turning to the faunal remains in F2, the interpretation of the residues here as deposited by slaves emanated largely from a preliminary faunal analysis made by Francis Thackeray (1989; see Table 3.5). He initially analyzed each Phase individually, but later amalgamated them all into a single sample. He excluded staggered fusion ages for different epiphyses in counting the combined MNI, ignored taphonomic processes that favor adult representation, and did not directly count burned fragments. Thackeray reached two conclusions. First, he concluded that domesticates dominated, with sheep and cattle making up 60% of the NISP. Other identified taxa included domestic pig (*Sus scrofa*), an unidentified small bovid, an unidentified rabbit, Cape hyrax (*Procavia capensis*), an unidentified rodent, and some tortoise. Sheep outnumbered cattle 3:1 for the total sample, and juveniles comprised 41% of the identifiable post cranial fragments. His second conclusion was that skeletal parts counts showed many teeth and few hind limbs, suggesting that the Old Granary occupants had limited access to meaty portions of the carcass. Due to the high degree of fragmentation, Thackeray interpreted fragmented sheep and cow crania as evidence of slaves breaking the skulls open to access the brain. In addition to Thackeray's argument, Hall further argued the presence of slaves through the discovery of articulated fish skeletons, a perceived low-status food (1988: 21; 1992: 389, 395). However, the slave diet interpretation has been fully refuted elsewhere (Heinrich 2010, 2012; Chapters 2, 12).

Two samples were selected for re-analysis (Table 3.6). They were chosen for their relatively larger sample sizes, and they came from the earliest Phase 1(pre-1685) and from the latest Phase 7 (early to mid-18th century), which was specifically thought to reflect slave behavior (Hall n.d. e; 1988; 1992; 1999; Thackeray 1989).

Table 3.5. Old Granary (F2): Thackeray's MNI by Phase (copied from Thackeray 1989)

Taxon	**Phase (MNI)**							**Total**
	7	**6**	**5**	**4**	**3**	**2**	**1**	
Sheep adult	3	0	4	3	2	1	3	16
Sheep juv.	2	0	5	1	1	1	1	11
Cow adult	2	0	1	1	1	1	1	7
Cow juv.	0	0	0	0	1	0	1	2
Pig	1	0	1	0	1	0	0	3
Small bovid	0	0	0	1	1	0	1	3
Lepus sp (rabbit)	0	0	0	1	0	0	1	2
Cape hyrax	0	0	0	0	0	1	1	2
Rodent	1	0	0	0	0	0	1	2
Tortoise	0	0	0	1	1	1	0	3
Total	9	0	11	8	8	5	10	51

Table 3.6. Old Granary (F2):
Faunal collection sample sizes (NISP)

Phase	**Bone (nos.)**	**Isolated Teeth* (nos.)**	**Total (nos.)**
7	2087	81	2168
1	883	43	926

* Teeth present in bone were not counted as isolated teeth.

Results

Taxonomy

The deposits from Phases 1 and 7 are dominated by sheep (*Ovis aries*) with smaller proportions of cattle (*Bos taurus*), pig (*Sus scrofa*), and wild species (Table 3.7). Sheep outnumber cattle by MNI ratios of 5:1 in Phase 1 and 3.5:1 in Phase 7, which contrast with Thackeray's figures of 2:1 and 2.5:1, respectively, possibly because staggered bone epiphyseal fusion developmental stages were accounted for in this reanalysis. The present analysis identified a pig in Phase 1 that was originally missed during Thackeray's analysis. Each Phase also contained one unidentified rabbit (*Lagomorpha* sp.). Finally, a partial skeleton of a domestic cat in Phase 7 contained no butchery marks and probably represents a natural death.

Table 3.7. Old Granary (F2):
Taxonomic representations in two selected Phases

Taxon	**Phase**			
	7		**1**	
	NISP	**MNI**	**NISP**	**MNI**
Bos taurus, cow	8	1	28	1
Ovis aries, sheep	497	7	175	5
Sus scrofa, pig	13	1	8	1
Lagomorpha sp., rabbit	1	1	1	1
Sylvicapra grimmia, gray duiker	3	1		
Raphicerus campestris, steenbok	1	1	3	1
Hystrix africae-australis, porcupine			6	1
Felis catus, cat	15	1		
ind carnivore	1	1	1	1
ind mammal 2	393	1	142	1
ind mammal 1a	1	1		
ind mammal 1b	1	1		
ind mammal 3	2	1	19	1
Artiodactyla	350	1	158	1
ind bovid 1a	2	2		
ind bovid 1b	28	1	4	1
ind bovid 2	826	1	289	1
ind bovid 3	21	1	78	1
Chersina angulata, tortoise	2	1	14	1
Gallus gallus, chicken	1	1		
ind bird	1	1		
Total	2167	27	926	18

Wild species are rare and include small bovids such as the steenbok (*Raphicerus campestris*), the gray duiker (*Sylvicapra grimmia*), the Cape hyrax (*Procavia capensis*), and porcupine (*Hystrix africae-australis*). Tortoise (*Chersina angulata*) was represented by a few fragments of the carapace.

A preliminary, unpublished analysis of the bird remains is summarized below (Horwitz and Avery 1989) (Table 3.8). It features domestic fowl, including chicken (*Gallus gallus*) and domestic duck (*Anas domesticus*), as well as a variety of wild birds. An additional distal foot phalanx from a large, unidentified ground bird and an additional chicken specimen were found during re-analysis and are included here.

Although not part of this analysis, the fish were analyzed by Poggenpoel (1996: 122) and are included to show the breadth of diet at the Castle. He calculated that there were 249 MNI, derived from 13 different taxa in the aggregated seven Phase sequence. The taxa were restricted to species from the colder waters around the Castle (Poggenpoel 1996: 122). The most abundant species was the southern mullet or haarder (*Liza richardsoni*), with large inclusions of the white stumpnose (*Rhabdosargus globiceps*), the hottentot (*Pachymetopen blochii*), white steenbras (*Lithnognathus lithnognathus*), and mackerel (*Scomber japonicus*) (Poggenpoel 1996: 123). Butchery marks show beheading, filleting, and removal of haemal vertebral spines, suggesting that some fish were split to expose the meat for drying, smoking, or salting (Poggenpoel 1996: 125).

Ages

The sheep were slaughtered at a wide range of ages. Third molar wear patterns from Phases 1 and 7 show similar profiles, but unfortunately, too few third molars were present to infer slaughter practices using Payne's protocols (1973). The third molars are present in stages F through H, which indicates that the sheep were slaughtered when they were three to eight years old. An additional sheep slaughtered at 1.5 years old was identified in each Phase. Phase 1 contains two individuals that were around one year of age when slaughtered. Postcranial data shows the presence of more young sheep (younger than two years) in Phase 1 and more old ones (older than three years) in Phase 7 (Silver 1969: 285-286).

Cattle are represented by a few NISP. An adult calcaneus from Phase 1 shows that one individual was slaughtered after three years of age. Phase 7 contained the remains of both a younger and an older individual. The presence of an unfused distal tibia indicates that one individual in Phase 7 was slaughtered before 2.5 years of age, while two fused distal metapodial fragments show that another was slaughtered after three years of age (Silver 1969: 285-286).

The pig from Phase 1, which is represented by unfused distal tibia fragments and an adult second phalange, was slaughtered around two years of age (Bull and Payne 1982: 66). Phase 7 contained the remains of a minimum of two pigs, one slaughtered after one year of age according to

Table 3.8: Old Granary (F2): Bird analysis (reprinted from Horwitz and Hall 1989: Table 7)

Taxon	**Phase 7**		**Phase 5**		**Phase 4**		**Phase 3**		**Phase1**	
	NISP	**MNI**	**NISP**	**MNI**	**NISP**	**MNI**	**NISP**	**MNI**	**NISP**	**MNI**
chicken	7*	2			3	2	2	1	2	2
domestic duck	1	1					2	2		
Cape teal	1	1					6	1		
Egyptian goose	1	1								
Cape francolin	1	1					1	1		
gray-wing francolin	3	1					8	2		
pigeon	1	1					1	1		
Cape raven	1	1					1	1		
pied crow					1	1				
Cape cormorant			1	1						
crowned cormorant					2	1				
greater flamingo					1	1				
penguin	2	1								
greenshank					1	1				

* Includes the 1 chicken specimen originally overlooked in the mammal sample, which did not affect the MNI quantification.

fused proximal radius and metapodial fragments and the other at four to six months due to the finds of an unerupted first molar, fourth premolar, and incisor (Bull and Payne 1982: 56).

Birds include domesticated chickens and ducks as well as wild species (Table 3.8). Only adult birds were reported (Horwitz and Avery 1989: 2), but this might be because taphonomic effects have deleted juvenile specimens.

Skeletal Element Frequencies

Thackeray (1989) inferred evidence of a low status diet because meaty portions of the sheep were underrepresented in his analysis. Given the heavy taphonomic interferences in the Old Granary fauna, for this analysis NISP of sheep were combined with size 2 bovids, which are assumed to be sheep since no other size 2 bovids were present in the deposits (Table 3.9). The results of the aggregation show that upper and middle limb elements are equally well represented as opposed to the more distal elements such as metapodials, carpals, tarsals, and phalanges. The underrepresentation of distal limb elements such as metapodials, some tarsals and carpals, and phalanges is similar to that found in the other Castle sites, suggesting that the feet were removed from the carcasses during slaughter and possibly sent along with the hides to the tannery (Binford 1981: 136; Landon 1996: 67; Shaw 1997: 93-96). Finally there is no preponderance of head fragments to support Hall and Thackeray's evidence of a low status slave diet.

Table 3.9. Old Granary (F2): Skeletal part frequencies of *Ovis aries*/size 2 bovids by NISP compared to Thackeray's (1989) sheep-only results. Arrows indicate direction of percentage change, NC= no change

	Phase 1				Phase 7				Thackeray All Phases	
Element	**NISP**		**%**		**NISP**		**%**		**NISP**	**%**
lower premolars*		10	4.2	▼		23	2.8	▼	72	6.4
lower molars*		10	4.2	▼		23	2.8	▼	93	8.2
upper premolars*		3	1.3	▼		6	0.7	▼	54	4.8
upper molars*		4	1.7	▼		7	0.9	▼	80	7.1
incisors*		7	2.9	▼		26	3.2	▼	75	6.6
mandible*		20	8.4	▲		23	2.8	▲	5	0.4
maxilla*		2	0.8	▲		4	0.5	▲	1	0.1
occipital		0	0.0	▼		4	0.5	▼	11	1.0
temporal[n]	2				4					
frontal[n]	2				4					
premaxilla[n]	0				5					
indet vault[n]	8				12					
parietal[n]	1				4					
horncore[n]	2				2					
hyoid[n]	1				2					
zygomatic[n]	1				3					
atlas		3	1.3	▲		3	0.4	NC	5	0.4
axis		3	1.3	▲		2	0.2	▼	8	0.7
cervical		12	5.0	▲		55	6.7	▲	24	2.1
thoracic		19	8.0	▼		120	14.7	▲	105	9.3
lumbar		20	8.4	▲		115	14.0	▲	42	3.7
sacral[n]	2				9					
caudal		6	2.5	▼		21	2.6	▼	35	3.1
prox ribs		23	9.7	▼		98	12.0	▼	193	17.1
scapula		19	8.0	▲		43	5.3	▲	27	2.4
prox humerus		0	0.0	▼		10	1.2	▲	2	0.2
midshaft humerus[n]	10				19					

(Continued on following page)

Table 3.9. (*continued*)

	Phase 1				Phase 7				Thackeray All Phases	
Element	**NISP**		**%**		**NISP**		**%**		**NISP**	**%**
distal humerus		8	3.4	▲		11	1.3	▼	18	1.6
prox radius		5	2.1	▲		13	1.6	▲	16	1.4
midshaft radius[n]	4				19					
distal radius		2	0.8	▼		12	1.5	▼	29	2.6
prox ulna		5	2.1	▲		7	0.9	▼	14	1.2
midshaft ulna	0				0					
distal ulna		2	0.8	▲		7	0.9	▲	0	0.0
prox metacarpal		0	0.0	▼		2	0.2	▼	8	0.7
midshaft metacarpal[n]	1				0					
distal metacarpal		1	0.4	▲		0	0.0	▼	2	0.2
prox femur		4	1.7	▲		25	3.1	▲	17	1.5
midshaft femur[n]	10				33					
distal femur		3	1.3	▲		24	2.9	▲	9	0.8
prox tibia		3	1.3	▲		20	2.4	▲	3	0.3
midshaft tibia[n]	2				0					
distal tibia		6	2.5	▲		27	3.3	▲	18	1.6
prox metatarsal		2	0.8	▲		4	0.5	▲	3	0.3
midshaft metatarsal[n]	1				7					
distal metatarsal		3	1.3	▲		2	0.2	▲	1	0.1
prox metapodial		0	0.0	▼		0	0.0	▼	1	0.1
midshaft metapodial[n]	1				0					
distal metapodial		2	0.8	▼		4	0.5	▼	15	1.3
indet long bone FR[n]	168				348					
1st phalange		1	0.4	▼		5	0.6	▼	10	0.9
2nd phalange		2	0.8	▲		5	0.6	NC	7	0.6
3rd phalange		1	0.4	▼		4	0.5	▼	7	0.6
pelvis		7	2.9	▲		20	2.4	▲	25	2.2
carpals/tarsals		16	6.7	▲		20	2.4	▼	48	4.2
sesamoids		0	0.0	▼		3	0.4	▲	2	0.2
patella		1	0.4	▼		3	0.4	▼	10	0.9
astragalus		3	1.3	▼		11	1.3	▼	20	1.8
calcaneus		0	0.0	▼		7	0.9	▼	16	1.4
sternum[n]	1				5					
Total		**238**	**99.9**			**819**	**100.1**		**1131**	**100.1**

* For the reanalysis, mandible or maxilla bone fragments that contained teeth were counted as the respective bone fragment as well as a count for each tooth contained.

[n] Thackeray did not present these elements in his table, so they were not included in the percentage calculations.

Large herbivores are represented by few NISP, though both Phases show relatively even skeletal part representations of size 3 bovids. Given that these animals were not butchered in F2, the evidence suggests that although relatively complete animals might originally have been brought to the Castle, only their bone fragments were eventually dumped in F2. The same interpretation can be made regarding the pig bones.

Sheep Sex

Two male acetabulae are present in Phase 1.

Taphonomy

Preservation

The bones from both Phases in F2 are highly fragmented and relatively smaller than those from the other Castle sites sampled, namely, the Van der Stel Moat and Donkergat, but more comparable to those from the collection at Elsenburg. Both Thackeray (1989: 2) and Hall (1992: 392) interpreted this fragmentation as heavy bone processing by low status people trying to extract as many nutrients as possible. This is contradicted by our analysis of the bone surfaces and breakage, which shows that they were heavily affected by abrasion and carnivores. Abrasion is moderately represented in both Phases and probably resulted from trampling, sediment movement, and compaction by associated construction debris including brick, mortar, and stones (Phase 1 size 2 all fragments: 19.6%, size 3 all fragments: 20.0%, Phase 7 size 2 all fragments: 25.4%, size 3 all fragments: 20.7%). Carnivore damage was relatively minor in Phase 1 with 3.5% (n=31) of all bone fragments exhibiting toothmarks. However, Phase 7 showed toothmarks on 5.3% (n=106) of size 2 and 10.3% (n=3) of size 3 bones fragments. Long bones show an even higher proportion of marks from carnivore scavenging, suggesting that if a greater amount of softer axial elements were once present, they might have been deleted from the deposits by the scavengers (Blumenschine 1986; 1988; Blumenschine and Marean 1993; Marean and Spencer 1991; Marean et al. 1992). Finally, rodent modification was observed on only one bone fragment from Phase 1 and 10 bone fragments from Phase 7.

Close scrutiny shows that bone fragmentation occurred at two different times. First, over 70% of long bone fragments in each Phase demonstrate characteristic oblique fracture patterns of fresh bones that must have been made by butchery and/or scavenging. Second, a smaller portion (about 15%) of the long bone midshaft fragments show characteristic transverse and step fractures after the bones experienced some collagen decomposition. This elevated proportion of dry breaks is comparable to the surface deposit analyzed at Elsenburg (as discussed later in this chapter). The lack of refitted fragments along with the breakage patterns suggests that this breakage happened before the material was dumped in its present context and is unrelated to anyone living in F2.

Butchery

Chop marks are the most common butchery marks observed with 8.0% (n=71) of the bone fragments in Phase 1 and 13.9% (n=289) in Phase 7. Phase 1 showed similar frequencies of chop and cut marks, while scrape marks were minimal in both Phases.

A few distal foot elements show signs that they were removed from the site during the skinning process: Phase 1 contained three cut marked and three chopped foot elements, including carpals, tarsals, and metapodials; and Phase 7 contained two cut marked and three chopped distal foot elements (Binford 1981: 136; Landon 1996: 67; Shaw 1997: 93-96).

Cooking

Burning was limited to isolated spots at fragment ends or where meat only covered the bones thinly. Interior shafts of long bones were often burnt, suggesting either that the bones were probably chopped and then roasted with the marrow cavity exposed. Phase 1 contained burning traces on only 1.0% (n=9) of the bone fragments, as opposed to 5.8% (n=121) of the Phase 7 bone fragments.

Discussion

The analysis of the samples of F2 fauna does not point to *in situ* occupation by any group of people. Taken together with the sedimentology and artifacts, the fauna suggests that the deposit is a series of episodic secondary fills (see Schrire, this volume, Chapter 2). Other elements of the F2 fauna also do not fit the expected profile of Cape slave diet: beef was not slave food, game was illegal, and pigs and chickens were expensive and rare in the center of the Cape settlement (Markell et al. 1995: 27; Mentzel 1921: 101; Mentzel 1944: 213; Sealy et al. 1993: 89).

Why is our interpretation so different from Thackeray's 1989 findings? His key claim was that the absence of meaty sheep hind limb fragments and the preponderance of teeth reflected lower class or slave diet (Crader 1984, 1989, 1990; Hall n.d. e: 1). A major problem is that Thackeray's analysis only used fragments identifiable to species level, whereas our reanalysis incorporated *all* bone fragments, many of which were only confidently identifiable to less specific taxonomic levels. This reveals that more complete carcasses of sheep, cattle, and pig were slaughtered before the residues (including meaty limb and vertebral segments) ended up in the Old Granary (F2) fills.

The F2 fauna, most clearly visible in Phase 7, are the remains of animals after they had been processed and cooked. Unlike the Moat fauna that is mainly waste from primary butchery, the F2 faunal residues resemble those from the Castle locale of Donkergat, the Oudepost I terrestrial collection, and Elsenburg (as discussed later in this chapter), especially regarding the frequency of skeletal parts and burned bone (Cruz-Uribe and Schrire 1991: 100). Since all of these were kitchen dumps, their presence supports the deduction that the

F2 residues emanated from similar sources within the Castle. Given that the domestic faunal remains are seen as showing that the F2 residues came from kitchens, the fish found here might confidently be seen as rations prepared inside the Castle.

Finally, the F2 analysis provides a few clues to the organization of the wider Cape meat industry. Although the sample is very small, sheep ageing data suggest a change through time from slaughtering younger animals during the earlier VOC period to slaughtering more prime aged animals later on when flocks were well established. In addition, there is a hint that the late 17th century Phase 1 age profile of slaughter at one to two years is similar to that found at Oudepost I in both the terrestrial and intertidal zone dump (DP) (Cruz-Uribe and Schrire 1991: 98; see the discussion that follows).

Castle: Donkergat (DKG)

Introduction

Donkergat ('dark hole'), or DKG, is a small four by eight meter room in the Castle that stands at the base of the curtain wall of the Nassau bastion (Figure 3.1; Halkett 1988c; see Chapter 2). A high, vaulted chamber with two external air vents, it was outfitted as a torture chamber in 1698 (Böeseken 1961: 140-145). It resembles the so-called torture chamber of a similar name that stands opposite the entrance to the Old Granary F2 (Halkett 1988c: 1).

The site was excavated in 1988 by the Archaeology Contracts Office at the University of Cape Town under the direction of David Halkett (1988c). Material was removed in 2 m squares to a depth of about 40 cm to reveal the former presence of two original rooms. Residues of building rubble, artifacts, kitchen refuse, and small pits like those in the Old Granary (F2) were found. Halkett (2002: pers. comm.) suggested that the floor was raised by dumping garbage, specifically, kitchen residues, and that the pits may have housed scaffolding erected to help construct a vaulted roof. The identified ceramics include VOC- and British-made ceramics dating to the late 18th century (Klose 2005: pers. comm.).

The sample described here derives from the fills from excavation unit AB1/2 in Room 1 and consists of four successive fills capped by a concrete floor (Table 3.10). The abundant kitchen waste here afforded an attractive comparison with collections such as that from the Old Granary.

Results

Taxonomy

The taxa from Donkergat are dominated by domestic stock with only one wild species present (Table 3.11). Sheep (*Ovis aries*) are the most abundant, followed by cattle (*Bos taurus*) and pig (*Sus scrofa*). Sheep outnumber cattle 2:1 in the upper Layers and 4:1 in the lowest Layer 4. Pigs are only identified in Layers 3 and 4 and have the same MNI as sheep in Layer 3, though sheep are more heavily represented on NISP. Sheep outnumber pig in an MNI ratio of 4:1 in Layer 4.

The only wild species is a steenbok (*Raphicerus campestris*), and the only bird, a chicken (*Gallus gallus*) (Table 3.11).

If these were kitchen debris, and assuming that nearly complete animals were processed in the kitchen, a meat yield calculation might be made using 70 lbs for an average VOC hybrid sheep (Mentzel 1925: 56; Raven-Hart 1970: 297) and 500 lbs for historic Cape oxen (Mentzel 1944: 202). While the discussion later shows that animals were not complete when brought to the kitchen, this would still suggest that beef was an important meat source here (Table 3.12).

Table 3.10. Donkergat (DKG):
Sample sizes (NISP) for the Layers in AB 1/2

Column	Bone sample (NISP)	Isolated teeth* (NISP)	Total (NISP)
Layer 1	17	0	17
Layer 2	14	0	14
Layer 3	33	0	33
Layer 4	806	4	810

*Teeth present in bone were not counted as isolated teeth.

Table 3.11. Donkergat (DKG): Taxonomic representations by Layer

	Layer 1		Layer 2		Layer 3		Layer 4	
Taxon	NISP	MNI	NISP	MNI	NISP	MNI	NISP	MNI
Bos taurus, cow	1	1	2	1			44	3
Ovis aries, sheep	12	2	8	2	22	2	462	12
Sus scrofa, pig					4	2	22	3
Raphicerus campestris, steenbok							4	1
ind mammal 2							37	1
ind mammal 3							11	1
artiodactyla					4	1	95	3
ind bovid 2	2	1	4	1	1	1	52	1
ind bovid 3	2	1			2	1	82	2
Gallus gallus, chicken							1	1

Table 3.12. Donkergat (DKG): Layer 4:
Estimated meat yields for the main domestic fauna

Taxon	MNI	lbs/animal	Total weight
Ovis aries	12	70	840
Bos taurus	3	500	1500

Ages

Teeth are rare in the DKG deposits, so the ages at slaughter are mainly determined according to postcranial epiphyseal fusion stages for both sheep and cattle. The little information obtainable from Layers 1 through 3 is consistent with the richer collection from Layer 4, suggesting that the remains emanate from similar processes of animal selection. The sheep were mainly slaughtered between two and 3.5 years of age, with two individuals slaughtered after three to 3.5 years of age. An unfused distal humerus reveals that one lamb was slaughtered before ten months (Silver 1969: 285). Cattle were probably slaughtered when they were about four to five years old, and pigs between one and two years of age, with a single individual slaughtered before it was six months old (Silver 1969: 285).

Skeletal Element Frequencies

The sheep remains are heavily dominated by vertebral and limb elements, whereas cranial elements are nearly absent (Figure 3.4). Vertebral and limb elements are relatively equally represented with the exception of femora and the distal foot elements. Femora are twice as numerous as most other elements, perhaps due to their greater meat yield (Huelsbeck 1991: 66-69; Lyman 1979: 536-541; Lyman 1987: 61-65). Metapodials are rare, possibly because the carcasses were skinned for tanning before the carcasses were dispatched to the kitchens (Binford 1981: 136; Landon 1996: 67; Shaw 1997: 93-96).

Like sheep, the cattle remains are dominated by postcranial elements and metapodials are rare, suggesting that they were removed with the hide when butchery began.

The remaining species in DKG are too rare to identify consumption patterns. Pig remains resemble those of sheep and cows with the majority of elements from vertebral and appendicular regions. The steenbok was represented by a variety of postcranial bones, suggesting that most, if not all, of the carcass was brought to the Castle kitchen. The lone bird was identified from a humerus.

Sheep Sex

The DKG faunal sample does not provide any measurable acetabulae to determine sex.

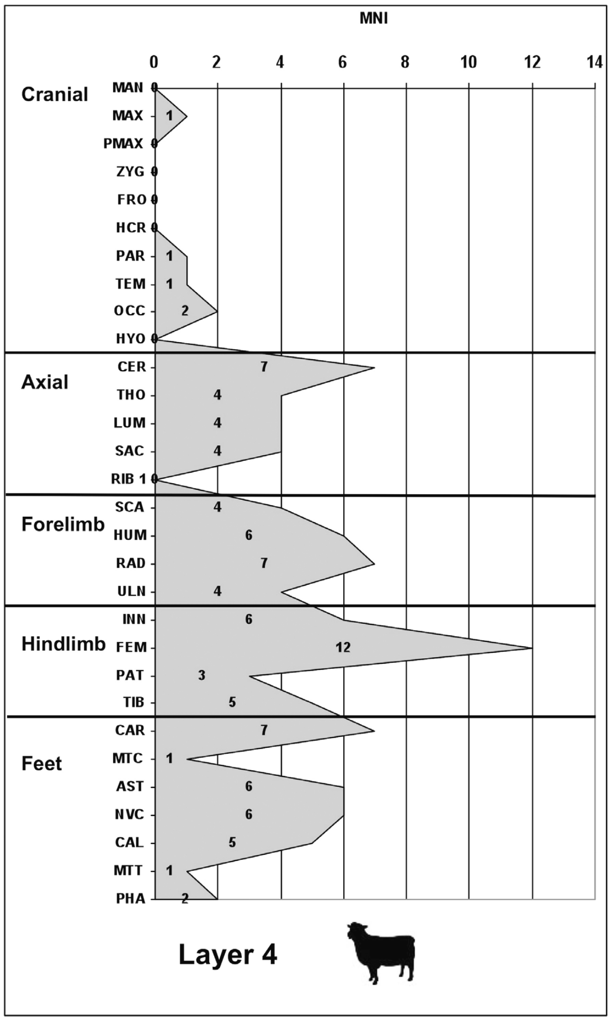
Taphonomy

Preservation

The DKG fauna is very well preserved with larger fragments than those found in the other assemblages sampled here.

Carnivore damage was observed in moderate frequencies on the size 2 bones in the deeper layers where the sample sizes were larger. Tooth mark frequencies are more common on the smaller, more manageable size 2 bones (6.5% and 8.0%, Layers 3 and 4, respectively), whereas they are rarely observed on the larger size 3 fragments. Nevertheless, long bone shafts are relatively intact (Layer 4: 65% size 2, 24% size 3) with high proportions of epiphyseal fragments (Layer 4: 1.89 for size 2 mammals and 3.55 for size 3 mammals), suggesting that carnivores did not have a major affect in destroying portions of the assemblage. Rodents contributed moderate damage to the bone surface, and their burrows were often observed in the upper layers (Halkett 1988c: 3, 5, 6). Though no bones were recovered, the small tooth mark size suggests they were mice or rats.

Figure 3.4. Donkergat (DKG): Layer 4: Sheep skeletal element profiles expressed as MNI represented by each element.



Abrasion was also observed in moderate frequencies on bones of both size 2 (5.0% in Layer 4) and 3 (8.1% in Layer 4) animals in the lowermost layer, and these traces are present in greater proportions on the denser, smoother surfaces of long bone and rib fragments.

Butchery

Butchery was best seen in Layer 4, where chop (11.0%) and cut (8.6%) marks occur in moderate frequencies. Scrape marks (0.4%) are rare compared to chops and cuts. These marks occur at regular, predictable locations on the bones. Chopping was the primary technique aimed at separating the limbs from their girdles as well as into upper and lower limb segments. In addition, vertebral columns were chopped transversely into lengths, and sagittally into left and right halves. Cut marks are most commonly observed on the upper limb bones, the humeri, and femora, and may be related to marks on the girdles, scapulae, and innominates where connecting meat masses were removed. Most of these cuts are found along major muscle attachments and were aimed at removing these large portions of meat.

Cooking

A moderate amount of cooking evidence appears in the DKG sample (Layer 4: 6.8%). Burning is always present in isolated parts of the bones, including chopped edges. It is also common on the interior surfaces of long bone shaft cylinders. The burned portions are generally a gray-purple color fading to white around the fringes, which has been described as the result of burning fresh bones containing high amounts of grease or meat (David 1989: 74). This suggests that marrow cavities were exposed to flame or high heat while the exterior was protected by meat.

Discussion

Sheep dominate the DKG fauna through MNI, but cattle provided substantial amounts of meat with pigs providing smaller amounts. Skeletal element frequencies suggest that nearly complete carcasses were processed in the kitchens with exceptions of the less meaty crania and feet. Unless these are kitchen residues of higher ranked members of the garrison, the prevalence of beef here contradicts the documentary implication that consumption of mutton far outweighed that of beef (Mentzel 1925: 84; 101).

The DKG fauna appears to be residues of the meat prepared by the kitchens that were located nearby in each of the bastions (Mentzel 1921: 63-64, 104-106; Mentzel 1925: 16). Skeletal element profiles suggest that most of the carcasses, with exception of the head and feet, were prepared with a tentative sign of preference for the meatier mutton femora. The large bone fragments with their high incidence of burning suggest that roasts were major components of the Castle diet represented here.

Oudepost I Intertidal Dump (DP)

Introduction

Oudepost I was a VOC frontier outpost built on the shore of the lagoon at Saldanha Bay on the Atlantic coast about 120 km north of the main Cape settlement (Figure 3.1). The outpost was established 1669 to secure the region from a French territorial claim. After this threat passed, the outpost became a VOC ships' provisioning post that also traded with local Khoekhoe pastoralists. Oudepost I was manned by a small contingent of four to ten soldiers on and off until 1732, when it was relocated near a better water source (Cruz-Uribe and Schrire 1991: 92; Schrire 1988: 218; Schrire1990: 12-13; Schrire 1992: 362-363; Schrire 1995: 77-78, 87; Schrire et al. 1993: 21; see also Chapter 2).

Excavations at Oudepost I took place mainly between 1984 and 1987, when the land around the post was extensively sampled and the intertidal zone on the beach in front of the outpost (DP) was tested. The intertidal zone was extensively sampled from 1990 to 1995, and analysis confirmed that its residues emanated mainly from the outpost itself (Cruz-Uribe and Schrire 1991; Jordan 2000; Schrire 1987, 1988, 1990, 1991, 1992, 1995; Schrire and Deacon 1989, 1990; Schrire et al. 1990; Schrire et al. 1993).

The first analysis of fauna included all the excavated residues found on land (Cruz-Uribe and Schrire 1991). The second included a sample from part of the intertidal dump (DP1, 2) retrieved in 1990 (Schrire et al. 1993). The main findings may be summarized as follows: The taxonomic analysis of the terrestrial fauna shows wild and domesticated mammals and tortoises. Measures of diversity and richness are high for the mammals compared with other hominid-collected samples from the Cape ecozone (Cruz-Uribe and Schrire 1991: 93). Wild mammals range in size from the large hippo and eland to small dune moles. They include a variety of buck, and an abundance of leporids, some of which are wild and others possibly domesticated. Carnivores include leopard, caracal, lion, and seals. Domesticated mammals include sheep, cow, and pig as well as dog and possibly some rabbit. Out of a total of 140 MNI for the aggregated site, wild species outnumber domesticates between 2.5:1 and 1.1:1 (Cruz-Uribe and Schrire 1991: 96) and domesticated sheep outnumber cattle 7.5:1 to 3:1 (ibid.: 94).

These ratios do not emphasize the additional wild-caught food consumed at the site. Fish were also great contributors to the diet, supplementing the mammalian fauna, as mentioned previously. Poggenpoel (1996: 117) did not present MNI for Oudepost I fish, but he notes that over 60% of the fish sample is the white stumpnose (*Rhabdosargus globiceps*) and that the southern mullet (*Liza richardsoni*) made up 21%. The high proportion of white stumpnose suggests line fishing techniques using gear such as the metal hooks and lead weights discovered in deposits around Oudepost I (Poggenpoel 1996: 119). The mullet was likely caught by netting, and much of this fish could have been sent off to the Cape settlement as provisions instead of it all being consumed on site, leading to it not being the most common fish (Poggenpoel 1996: 119).

In contrast to this, the first analysis of the intertidal sample (DP1 and 2) showed different proportions of animals, with almost equal numbers of both domesticates and wild animals as well as cattle and sheep (Schrire et al. 1993: 30). The disparity between the land based and the intertidal collections is thought to be due to differences in garbage disposal on land and in the water. Land generated residues that generally came from smaller animals were broadcast in and around the living quarters whereas carcasses including those of large domesticated animals were butchered on land and dumped into the intertidal zone (Cruz-Uribe and Schrire 1991: 93-94; Schrire et al. 1993: 30-31).

Turning to ages of animals, more than half the sheep were 18-24 months old, and the rest were mainly older adults (Cruz-Uribe and Schrire 1991: 98). A similar pattern occurs at the Cape site of Paradise (Avery 1989) but not at the Parade site just outside the Castle, where most sheep were older than two years of age (Abrahams 1994, 1996). Where taphonomy is concerned, the bone from the terrestrial sample was well preserved with little sign of carnivore activity at an unmagnified level (Cruz-Uribe and Schrire 1991: 99). Skeletal part representation suggests that the sheep were butchered as whole carcasses and later reduced by cooking. Butchery is evident in chop and saw marks on wild and domesticated mammals, and cooking is evident in charred remains (Cruz-Uribe and Schrire 1991: 100).

The present analysis of the intertidal Dump (DP) mainly deals with hitherto unanalyzed material recovered in 1995 from the intertidal zone. Cruz-Uribe (n.d.) counted about 1700 bone fragments from DP1 and DP2, but only 227 diagnostic bone fragments have been reported (Table 3.13). The material from DP1-2 is not reanalyzed here, but its data are incorporated into NISP/MNI and skeletal part frequency calculations. The analyses that follow come from units DP 3 through DP 16 and lack DP 15 which was lost.

Table 3.13. Oudepost I (DP): Sample sizes (NISP)

Sub unit	Bone (NISP)	Isolated Teeth* (NISP)	Total (NISP)
DP 1-2	171	56	227/1700
DP 3-16	1057	220	1277

*Teeth present in bone were not counted as isolated teeth

Results

Taxonomy

The DP fauna is dominated by domestic stock including sheep (*Ovis aries*), cattle (*Bos taurus*), and pig (*Sus scrofa*) (Table 3.14). MNI counts suggest that sheep outnumber cattle by a ratio of 4.7:1 and pig by 14:1. One horse (*Equus* sp) phalange represents an animal that was only previously identified in the archaeological record through a copper alloy/bronze spur (Cruz-Uribe and Schrire 1991:96).

The condition and fragmentation of the DP bones affected identification, as seen in comparison of NISP and MNI (Table 3.14). Though sheep outnumber cattle by about 5:1, the NISP of size 3 specimens (which might be cows) outnumber the size 2 specimens (which are likely sheep) by 1.5:1, suggesting that this ratio might well be more equal than it appears.

Wild fauna is less prominent in DP than it was in the land collections, making up only 22.4% of the MNI in DP as opposed to 71.4% (if carnivores are included) on land (Cruz-Uribe and Schrire 1991: 96). Most of the wild fauna are hartebeest (*Alcelaphus buselaphus*), steenbok (*Raphicerus campestris*), and duiker (*Sylvicapra grimmia*) (Table 3.14). Other herbivores include the hippopotamus (*Hippopotamus amphibius*), and elephant (Probiscidea) identified through ivory. Tortoise (*Chersina angulata*), the lone reptile, was identified by carapace fragments. The only carnivore identified in DP was the Cape fur seal (*Arctocephalus pusillus*). The rabbit specimens could not be identified to any domestic or wild species.

Ages

Sheep are represented by a large quantity of isolated teeth in DP 3-16. Ages were determined by using Payne's (1973) tooth wear stages as well as Silver's (1969) tooth eruption data. Tooth wear analysis suggests that the sheep were slaughtered at a broad range of ages, between nine months to about six years of age, with the majority being slaughtered when they were about two to three years old. First molars show that the sheep were slaughtered at prime ages since the teeth were moderately worn. One first molar, which erupts at five months of age, is present in a mildly worn stage and signifies the presence of a younger individual. Second molars show more clearly that the sheep were slaughtered at a wider range of ages. A number of second molars identified in an unworn stage suggests that some of the sheep were as young as around nine months to one year of age at slaughter (Silver 1969: 297). The bulk of the second molars are in moderate wear showing that most of the sheep were slaughtered after 1.5 years of age (Payne 1973: 288, 293). The third molars provide a maximum age of DP sheep slaughter. An MNI of three sheep have third molars in the wear stage corresponding to around four to six years of age.

Cattle are common in the NISPs but they are not well represented by specimens that provide ageing data. Postcranial bone epiphyses show that most cattle deposited in DP are older individuals since most epiphyseal fragments are in the adult stage of development. Proximal tibia, proximal humerus, and distal radius fragments show that at least one individual was slaughtered older than 3.5 to four years of age. At least one individual is younger than three years of age due to the presence of a pair of unfused distal metapodial fragments (Silver 1969: 286). The dentition is mostly moderately worn adult teeth that support the data obtained from the postcranial epiphyseal fusion stages.

Table 3.14. Oudepost I (DP): Taxonomic representations in the intertidal dump (DP 1-2 is from Schrire et al. 1993: 30)

	OP1 DP 3-16		DP 1-2		Total	
Taxon	**NISP**	**MNI**	**NISP**	**MNI**	**NISP**	**MNI**
Bos taurus, cow	120	5	120	5	240	6
Ovis aries, sheep	252	25	69	6	321	28
Sus scrofa, pig	7	2	1	1	8	2
Equus ind, horse	1	1			1	1
Sylvicapra grimmia, gray duiker	2	1			2	1
Raphicerus campestris, steenbok	11	2			11	2
Raphicerus spp.			16	3	16	3
Alcelaphus buselaphus, hartebeest	3	1	4	1	7	1
Lagomorpha ind, rabbit			3	1	3	1
Hippopotamus amphibius, hippopotamus			7	1	7	1
Proboscidea, elephant	2	1			2	1
ind mammal 2	16	1			16	1
ind mammal 3	77	1			77	1
artiodactyla	49	1			49	1
ind bovid 1b	15	1			15	1
ind bovid 2	183	1			183	1
ind bovid 3	501	1			501	1
Chersina angulata, angulate tortoise	34	1			34	1
Arctocephalus pusillus, Cape fur seal	5	2	7	3	12	4
Total	1278	47	227	21	1505	58

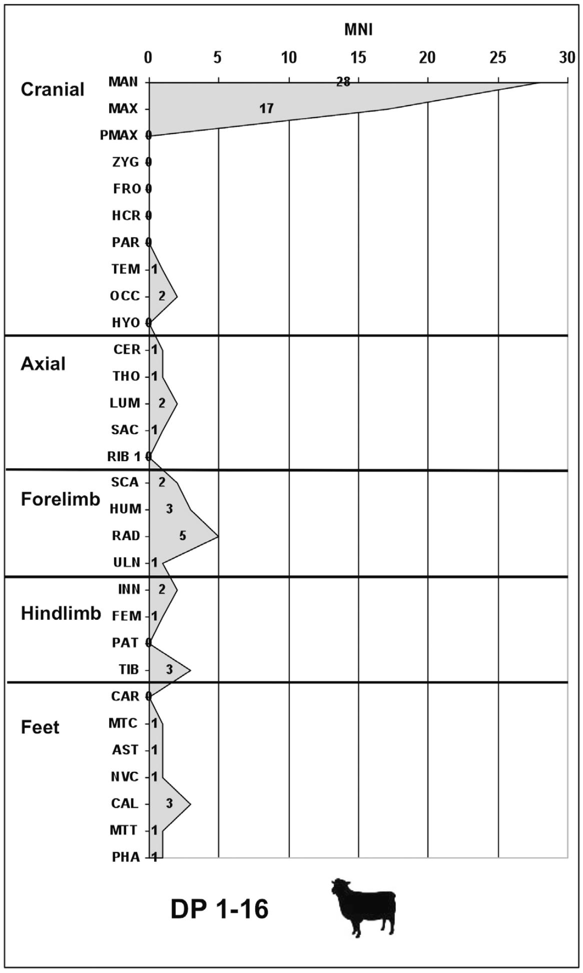
Pigs do not provide much age data either, since no teeth were present. A fused phalange and distal tibia and an unfused calcaneus show that at least one individual was two to three years old (Silver 1969: 285).

Skeletal Element Frequencies

Skeletal element frequencies provide more information about the depositional environment than about garbage deposition.

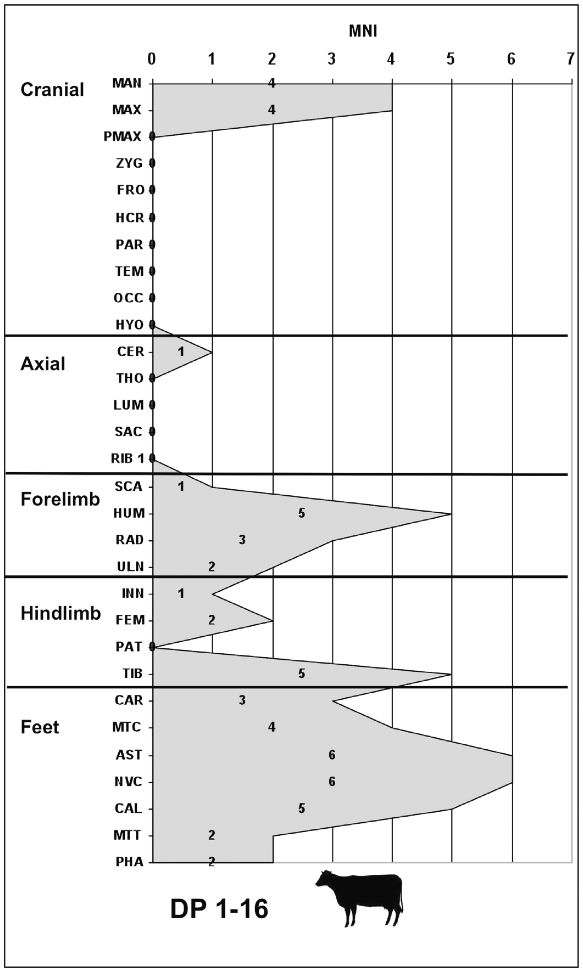
Sheep are heavily represented by teeth (especially molars), most of which were recovered loose as in DP1 and 2 (Cruz-Uribe n.d.; Schrire et al. 1993: 30). Winnowing, dissolution, or breakage of the low density cranial elements reduced heavier, dense molars to pebble-like sediments (Figure 3.5). Boney remains can rarely be identified to the species level, and those that could be identified are most often from denser diagnostic portions of bones such as the radii, humeri, and tibiae. Size 2 mammal remains that could not be identified to species level include dense portions of bones such as long bone midshaft fragments (69.5%, n=171 of size 2 mammal/artiodactyla/bovid sample from DP 3-16 were long bone shaft fragments). Even though axial elements are lacking for sheep, if size 2 specimens are lumped with the sheep, the heavy representation of axial element fragments would produce a more even skeletal element profile. This suggests that more complete sheep carcasses were originally deposited in DP, where they were rendered unidentifiable to a more specific element or taxon.

Figure 3.5. Oudepost I (DP):
Sheep skeletal element frequencies by MNI.



Cattle remains produce a different skeletal element frequency profile than that of sheep (Figure 3.6). They are most heavily represented by appendicular elements and isolated teeth do not make up a large percentage of the remains. Higher proportions of postcranial bones from cattle were also reported for DP 1 and DP 2 (Cruz-Uribe n.d.; Schrire et al. 1993: 30). Like sheep, boney remains were rarely identified to species level. Size 3 remains were dominated by limb element fragments (76.3%, n=456 of size 3 mammal/bovid sample from DP 3-16 were long bone fragments) and identified only to mammal and bovid taxonomic levels. Unlike sheep, where the unidentified size 2 bones even out the element frequency profile, the cattle element frequency profile is skewed towards appendicular elements by including size 3 bone fragments. This suggests that winnowing affected sheep and cattle crania differently, or that the cattle crania were differentially deposited. The lower proportion of cattle cranial specimens could suggest that they were washed further away from the intertidal zone, or not dumped there as often.

Figure 3.6. Oudepost I (DP): Cattle skeletal element frequencies by MNI.



Pigs and wild mammals were represented by very small samples of mostly postcranial material.

Sheep Sex

Data was not available to identify sex in the DP sample.

Taphonomy

Preservation

The bone fragments from DP were in poor condition due to repeated submergence and exposure in the intertidal zone of the Langebaan lagoon. Only four (0.4%) fragments retained their pristine, original surface condition, and they were recovered from the DP units closer to the shore beyond the regular tidal reach. Many have an orange-white or white bleached bone color after being soaked in fresh, running water for weeks after recovery. They all show severe rounding and cortical surface exfoliation, leaving them with a powdery texture, which obscured any observation of surface modifications from biological or human taphonomic processes.

Despite this damage, the bone fragments were relatively large for both size 2 and size 3 mammal classes. A possible reason for this might be that the bones were not severely broken before deposition, or that the smaller fragments were dissolved or winnowed away by the tides. Bones were broken in moderate frequencies after being deposited in DP: 23.2% (n=169) of the long bone fragments exhibited dry breaks that probably occurred after deposition in the lagoon. High long bone midshafts to epiphyses fragment ratios (19.5:1 size 2 and 9.7:1 size 3) suggest that the less dense, and probably smaller, bone fragments were selectively deleted from the faunal sample.

Butchery

Evidence of butchery and cooking is nearly invisible in the DP sample because of the severe damage caused by the brackish depositional environment. Chop marks predominate over cuts and scrapes since they are deeper marks and survived the intertidal weathering. Their positioning on joints was clearly aimed at dividing the carcasses into smaller portions.

Cooking

Cooking residues were rare, which is likely due to taphonomic influence.

Discussion

The residues in DP are dominated by faunal remains. The fauna has been interpreted as dumping from episodic butchery that was done to provision ships (Schrire 1995: 99; Schrire et al. 1993: 30). Similar dumping behavior was reported from Table Bay where large numbers of animals were slaughtered *en masse* on the beach (Raven-Hart 1970: 346).

The taphonomic history of DP's fauna was compromised by the intertidal lagoon environment. A major concern is that portions of the recovered faunal sample were winnowed and washed away, or dissolved through repeated saturation and drying. Softer axial bones associated with the vertebral column and cranium were almost nonexistent for both size 2 and size 3 mammals, and skeletal element frequencies suggest that lower density skeletal parts were selectively deleted. This is particularly clear where limb bones are concerned: long bones specimens consist of two main portions, one being the very dense shaft segment and the other being the softer, trabecular, epiphyseal ends. The DP faunal sample is overwhelmingly dominated by the dense midshaft portions. In addition, many of the limb bone fragments were broken after the bones were dried out and the collagen component had deteriorated. The compromising of the faunal sample between deposition and recovery undermines conclusions about skeletal element frequencies and taxonomic representations, and makes it difficult to determine the treatment of animal resources at the post.

This having been said, the present analysis supports the interpretation of the smaller DP 1 and 2 samples (Schrire et al. 1993: 30-31; Schrire 1995: 108-109). On land, wild animals outnumber domesticates, cattle are scarce, and sheep outnumbered cattle 7.5:1 for the overall collection, a much higher ratio than is reported in archival sources (Cruz-Uribe and Schrire 1991: 94, 96; Schrire et al. 1993: 30; Schrire 1995: 96 108). The present analysis of DP fauna suggests that more cattle were dumped into the sea than were discarded on land, and that it was probably done during episodes of ships' provisioning. Stock ratios of sheep to cattle are less inequitable ranging from 5-4.6:1 and probably even closer (as already noted). A raw count of sheep-sized and cattle-sized specimens suggests that cattle were more important allometric resources at Oudepost than previously determined from the terrestrial fauna.

As for the sheep, although ages range widely from about nine months to six years, most were slaughtered between ages two to three when meat yield would have been near its maximum efficiency (Mentzel 1944: 212). This age information is similar to the terrestrial fauna, suggesting they were probably from a common stock slaughtered following the same protocols. Finally, the predominance of wild animals on land still contrasts with that found in DP. The terrestrial fauna was dominated by wild species showing that hunting, fishing, and possibly trapping were important subsistence methods that compensated for the lack of local farm animals and for low meat provisioning to the outpost from the Castle (Cruz-Uribe and Schrire 1991: 93-96; Schrire 1995: 106-109; Schrire et al. 1993: 30). In contrast, unless the tides have deleted the remains of wild animals, the intertidal dump contained only a fraction of the abundances and diversity of wild fauna identified on land.

Elsenburg DBYC (ESB):

Introduction

Elsenburg, the present agricultural college of Stellenbosch University, was a colonial farm located in the Western Cape, about 50 km east of Cape Town and 13 km north of Stellenbosch (Figure 3.1). The original farm was granted in 1698 as a 110 *morgan* estate by the VOC to their Secunde, Samuel Elsevier (Fransen and Cook 1980: 166; Kolben 1731b: 43; Schutte 1989: 304). He expanded its acreage to encompass several VOC stock farms, and constructed a dam and grain mill in front of the house (Kolben 1731b: 43). In 1752, Anna Margaretha Hop, the widow who owned the property, married Martin Melck, a former German soldier in the VOC who farmed in Stellenbosch (De Bosdari 1953: 68; Western Cape Archives and Records Service, Census Records J198). They became prominent members of Cape society, living well at Elsenburg.

The original house no longer stands, and its location and shape up till 1747 is a matter of dispute (Fagan 1984: 34-5; Hart and Halkett 1993: 24). By 1774, the *werf* looked like a traditional village (De Bosdari 1953: 69; Fagan 1984: 35; Hart and Halkett 1993: 3-5; Walton 1974: 38; Cape Archives Estate Papers MOOC 7/1/25). Melck died in 1781 and the *Herehuis* (gentleman's or manor house) burned around 1915-16. Today, Elsenburg exists as a *werf* as it was rebuilt in 1761, with a 'U" shaped *Herehuis*, wine cellars, stables, slave quarters, smithies, and a school, as well as an ornate water sluice running along the front of the house.

The most recent restoration took place in 1992-93, when archaeological deposits were excavated by the Archaeology Contracts Office in Phase 1 and 2 investigations (Hart and Halkett 1993: 3). The chief focus was the excavation of a fill lying beneath the kitchen of Melck's *Herehuis* that predates the rebuilding of 1761 (Hart and Halkett 1993: 3). This "Kitchen Dump" excavation covered an area of 15 m^2 and extended to a depth of c.1.2 m (Hart and Halkett 1993: 3-4). Seven stratigraphic layers were defined, the most significant of which is the rich, primary 'Kitchen Dump' (or 'DBYC' for 'Dump Below Yellow Clay'), dated to the second quarter of the 18th century (Hart and Halkett 1993: 13; see Chapter 2).

The fauna from excavation unit 6 of the 'Kitchen Dump' (DBYC 6) was analyzed as a representative sample of a colonial farm, for comparison with the samples from the urban Castle and the frontier outpost at Oudepost I (Table 3.15).

Table 3.15. Elsenburg (ESB): DBYC 6 Sample size (NISP)

	Bone (NISP)	Isolated teeth* (NISP)	Total (NISP)
DBYC 6	9762	270	10032

*teeth present in bone were not counted as isolated teeth

Table 3.16. Elsenburg (ESB): Taxonomic representations in DBYC 6

Taxon	NISP	MNI
Bos taurus, cow	52	3
Ovis aries, sheep	1014	20
Sus scrofa, pig	21	3
Lepus capensis, Cape hare	6	2
indet *Lagomorpha*	3	1
Sylvicapra grimmia, gray duiker	12	1
Raphicerus campestris, steenbok	4	1
indet *Raphicerus*	1	1
Orycteropus afer, aardvark	1	1
Procavia capensis, Cape hyrax	2	1
Canis familiaris, dog	5	1
Felis catus, cat	1	1
indet carnivora	5	1
indet rodentia	1	1
indet mammal 1a	4	1
indet mammal 1b	27	1
indet mammal 2	1688	1
indet mammal 3	511	1
indet artiodactyla 2	1103	2
indet bovid 1b	356	4
indet bovid 2	3571	15
indet bovid 3	961	2
Passer melanurus melanurus, Cape sparrow	3	1
Ploceus capensis capensis, Cape weaver	5	2
indet Ploceidae	1	1
Spreo bicolor, starling	18	3
indet Phasianidae, poss. peacock	2	2
Streptopelia capicola, Cape turtle dove	2	1
Colomba livea, pigeon	11	4
Gallus gallus, chicken	102	11
indet bird	1	1
indet Anatidae	18	4
Anas domesticus, domestic duck	51	3
Anas erythrorhyncha, yellow-billed duck	1	1
Alopochen aegyptiaca, Egyptian goose	5	1
Plectropterus gambensis, spur-winged goose	2	1
Chersina angulata, angulate tortoise	409	11
Pelomedusa subrufa, Cape terrapin	43	5
indet reptile	8	1
indet Chiroptera	1	1
Total	10032	119

Results

Taxonomy

The Elsenburg bone fragments are on average amongst the smallest in all the sites analyzed here, making identification to specific levels more difficult.

The mammalian fauna from DBYC 6 is dominated by domestic stock with a minor addition of wild game (Table 3.16). Sheep (*Ovis aries*) outnumber both cattle (*Bos taurus*) and pigs (*Sus scrofa*) by MNI, in ratios of about 7:1. The other domesticated mammals identified in DBYC 6 are a cat (*Felis catus*) and a dog (*Canis familiaris*).

The wild fauna includes the small bovids such as a gray duiker (*Sylvicapra grimmia*) and the steenbok (*Raphicerus campestris*). Rabbits are identified as the wild *Lepus capensis* species. Other wild mammalian species include the Cape hyrax (*Procavia capensis*), a bat (Chiroptera ind), and an aardvark (*Orycteropus afer*) that is identified through the presence of a single phalange. The birds from DBYC 6 include both domesticated and wild species (Table 3.16). The domestic birds include chickens (*Gallus gallus*) and domestic duck (*Anas domesticus*). The wild birds are diverse and include small birds such as the Cape sparrow (*Passer melanurus melanurus*), the Cape turtle dove (*Streptopelia capicola*), the Cape weaver (*Ploceus capensis capensis*), and the native starling (*Spreo bicolor*). In addition there are water fowl such as the yellow-billed duck (*Anas erythrorhyncha*), the Egyptian goose (*Alpochen aegyptiaca*), and the spur-winged goose (*Plectropterus gambensis*). The wild birds are generally each represented by one individual except the starling (MNI of 4) and the weaver (MNI of 2). Four subadult ducks (MNI) could not be identified to species. Finally, three very large individuals of the Pheasantidae Family have been identified as possible peacocks (*Pavo* sp.). Numerous reptile remains have been identified and mainly include the angulate tortoise (*Chersina angulata*), which outnumber the freshwater Cape terrapin (*Pelomedusa subrufa*) 3:1 by MNI.

Although sheep outnumber cattle and pigs through MNI, meat yield estimates show that cattle were significant contributors to the meat consumed by the inhabitants at Elsenburg, with the young pigs affording only a small amount of meat (Table 3.17).

Hart and Halkett (1993: 55) identified other faunal resources in the Dump that were not part of this analysis. They include marine shellfish like black mussel, white mussel, and the alikreukel, as well as limpets and whelks. Fresh and marine water fish species were also found, though they are not presented (Hart and Halkett 1993: 65).

Table 3.17 Elsenburg (ESB): Estimated meat weights for domesticates in DBYC 6

Taxon	MNI	lbs/animal	Total weight (lb)
Bos taurus	3	500	1500
Ovis aries	20	70	1400

Ages

Most sheep at Elsenburg were relatively old, having been slaughtered around four to six years of age (Payne 1973:293-294). Two mandibular third molars specimens are in advanced stages of wear and show slaughter between six and ten years of age. One mildly worn deciduous premolar shows that a lamb was probably less than one year of age when slaughtered (Silver 1969:297). Postcranial bone development supports the data obtained from the dentition. Most epiphyses are fused, including those that fuse around three to 3.5 years of age (Silver 1969: 285-286). A proximal radius fragment reveals that a lamb was slaughtered before ten months, and this element may correspond to the lamb represented by the deciduous tooth. It is possible that carnivore scavenging may have deleted some subadult epiphyses, but the postcranial sample mirrors the dentition, which shows that most sheep were slaughtered at relatively older ages.

Cattle specimens are highly fragmented, making it difficult to derive ageing. An MNI of two are represented by the dentition: one individual's teeth are extremely worn, probably near the point of having been ineffective tools for processing food; the second individual is represented by worn molar fragments and a deciduous premolar that is in a very advanced degree of wear, placing the individual at about three years of age at slaughter (Silver 1969: 296). The only postcranial specimens that could provide ageing data fuse at very young ages and only show that those cattle were slaughtered after one year of age (Silver 1969: 285-286).

Pig remains come from very young individuals. One individual has a series of unerupted teeth including a deciduous premolar, which shows slaughter before one year of age (Bull and Payne 1982: 56). The rare postcranial pig remains support the dental information where one distal humerus is unfused, showing this pig was younger than one year of age (Bull and Payne 1982: 66; Silver 1969: 285). In addition, a pair of vertebral fragments with unfused neural arches shows that this individual was younger than three to six months of age at death (Silver 1969: 285). Though older pigs are not represented by fused epiphyses or dentition, relative bone size and texture suggest that some are present in DBYC 6.

The bird and reptile samples include eight adult and three subadult chickens, three adult domestic ducks, and four indeterminate subadult ducks that may be wild. The two possible peacocks are present as both adults and subadults. Except for the turtledove, which is present as both adults and subadults, the wild birds are all adults. The turtles and tortoises were found as adults and subadults. Tortoises are well represented by carapaces and plastrons of variable sizes, which may suggest tortoises of a variety of ages were collected.

Skeletal Element Frequencies

Sheep are well represented by teeth and long bones from both the fore and hind limbs. Softer and smaller bones such as the cranial vault, vertebrae, and most foot bones are less well represented (Figure 3.7). Taphonomic processes, especially the carnivore scavenging and trampling, have probably selectively deleted these portions. Assuming that nearly complete carcasses were dumped in DBYC, the greater representation of some softer bones such as the diagnostic hyoid, second cervical (axis) vertebrae, and innominates, suggests that the softer portions of the skeleton would have been more equally represented had taphonomic processes not intervened. Metapodials and foot elements are also rare, probably due to skinning and hide processing elsewhere on the farm (De Bosdari 1953: 69; Fagan 1984: 35; Hart and Halkett 1993: 5; Walton 1974: 38).

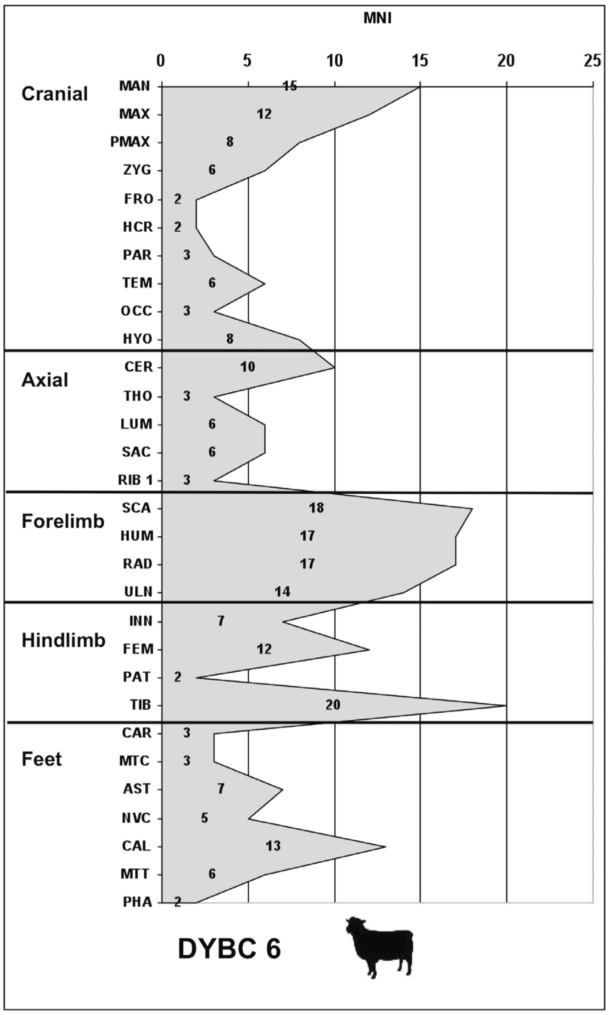


Figure 3.7. Elsenburg (ESB): Sheep skeletal element profiles expressed as MNI represented by each element.

Both cattle and pigs are too poorly represented for definitive statements to be made on skeletal element frequencies. Specimens from most skeletal regions are identified in DBYC, suggesting that, like the sheep, nearly complete carcasses were deposited there after processing.

Sheep Sex

Medial acetabular measurements of the sheep at Elsenburg show that they are generally smaller than those recovered from the Moat (see Figure 3.3). The Elsenburg curve peaks in the female end but also overlaps into the male portion of the range (Greenfield 2002). This shows that the Elsenburg sheep sample is dominated by females, but probably also includes a small proportion of males. Horn cores are often used at pastoral sites to determine sheep sex, but cannot be used here because both male and female sheep at the Cape had horns (Albarella 1995: 700-701; Mentzel 1944: 211).

Taphonomy

Preservation

The bone fragments from DBYC 6 are in excellent condition and most (98.8%) retain original surface conditions, showing no effect from root etching or weathering. They are highly fragmented, being amongst the smallest average sizes of all the faunal samples analyzed here. Most fragmentation occurred while the bones were fresh, but a moderate proportion show dry bone breaks (11.3% of long bone fragments) that occurred after decomposition.

The Elsenburg Dump was deposited in a natural ground depression where bones might have been modified by several taphonomic agents. Carnivores were significant modifiers of the DBYC 6 bone fragments, with smaller animals having higher proportions of tooth marked fragments (19.3% size 1b, 12.3% size 2) than larger animals (7.6% size 3) (Binford 1981: 124; Blumenschine 1986; Blumenschine and Marean 1993; Marean and Spencer 1991; Marean et al. 1992). In addition, carnivores selectively deleted epiphyseal portions of long bones (epiphyseal: shaft ratios: 18.9 size 1b, 14.5 size 2, 124.5 size 3) and fragmented the shafts (circumference completion of 36% for size 1b, 26% for size 2, and 12% for size 3). The chief carnivore responsible here is probably the domestic dog, which is present in the collection.

Abrasion by trampling is present in moderate frequencies in all animal size classes and skeletal regions, with smaller animals generally showing higher proportions of damage (all fragments: 4.7% size 1b, 3.5% size 2, 3.0% size 3). Smooth-surfaced bones, such as long bones and ribs, exhibit higher frequencies of trampling damage. Along with carnivore damage, this points to post-deposition exposure on the open ground.

Butchery

Chop marks (10.9%) dominate over cuts (3.8%) and scrapes (0.3%). The chops were aimed at dividing the carcasses into smaller segments and are observed at major anatomical joints, where appendicular elements articulate with the girdles, where upper and lower limb segments meet, and near locations of foot removal. Cranial elements also show heavy sagittal chops that divided them in half, exposing the brain. The marks are mainly on the occipital and parietal bones, but occur also on the frontal bone and the premaxillary and mandibular symphyses. Additional chop marks are observed along the vertebral column, splitting it into sagittal halves and also into segments, and also on rib fragments, separating them from the vertebrae and dividing them into regular short segments.

Cuts and scrapes, which are common on upper limb bones, reflect meat removal. Knife marks are also present on the cranium, posterior to the orbits and vertically on the premaxillae. These probably represent skinning to release the tightly adhering skin around the orbits. Ten of the 23 (43.5%) hyoid fragments contain cut marks to remove the tongue, and six mandible fragments with cuts medially posterior to the mandibular symphysis reveal efforts to further separate the tongue from any bony attachments. Two C1 (atlas) vertebrae have transverse cut marks across their ventral surface, possibly indicating throat slicing during slaughter (Shaw 1997: 93).

Burning

Burning (9.0%) evidence ranges from charred to fully calcined bone. A number of fragments are burnt on the exterior surface and charred on the interior surface as a result of containing meat or a large quantity of grease (David 1989: 74). Burnt or charred ends of sheep distal limb bones exposed through the removal of more distal metapodials and other foot elements show that the feet were taken off with the skins before the animal was cooked. Burning is most frequent on long bone fragments, suggesting that roasts were common components of the cuisine at Elsenburg.

Pathologies

The DBYC 6 faunal sample has evidence of trauma not observed in the other Cape collections. The lateral process of a lumbar vertebrae and the caudal margin of a scapula of size 2 bovids show breaks that were in the process of healing with porous bony cysts. One cow maxilla has evidence of an abscess just anterior to the infraorbital foramen. Lastly, one sheep metacarpal contains an *osteochondritis dissecan* that results "…from the herniation of small portions of the joint cartilage through the articular surface of the bone" (Dobney et al. 1996: 38).

Discussion

Archaeological and documentary records show that sheep were important components in the diet at Elsenburg (Cruz-Uribe and Schrire 1991: 96; Elphick 1985: 160; Hall et al. 1993: 52; Mentzel 1925: 101; Ross 1989: 253). The Elsenburg ratio of 7:1 falls within the 'living ratio' of sheep to cattle recorded here in the Stellenbosch census records taken for tax and inventory purposes (Western Cape Archives and Records Service, Census Records J188, J189, J193-J200). The archaeological data fill in the gaps overlooked in the documents that simply counted the quantities of sheep present at Elsenburg without any information about flock demographics

(Western Cape Archives and Records Service, Census Records J188, J189, J193-200, Cape Archives Estate Papers MOOC 7/1/25). The archaeological inferences about sheep age and sex reveal the farm as a site of meat production. The sheep were relatively old at the time of their slaughter, being, on average, older than the sheep in the Moat, Old Granary (F2), Donkergat, Oudepost I, Grand Parade, or Paradise (see earlier in this chapter, and also Abrahams 1996: 244; Avery 1989: 115; Cruz-Uribe and Schrire 1991: 99; Hall et al. 1993: 52). Sex ratios suggest that most were ewes. This is consistent with the management practices on a farm focused on meat production where reproductive females far outnumber reproductive males in the standing flock (Dobney et al. 1996: 30-31, 39-40; Payne 1973: 281-282). It is also consistent with the realization that younger (prime-aged) sheep were marketed at the Cape and its outposts, where they ended up in the samples discussed previously.

Sheep outnumber pigs about 7:1 by MNI, which is higher than the 'living ratio,' which was never lower than 18 sheep to one pig for any year during the period represented by the Elsenburg sample (Western Cape Archives and Records Service, J196). The presence of pigs at Elsenburg confirms the archaeological dating of the dump to the mid-18th century (Hart and Halkett 1993: 25; Klose 1997: 123) in that large numbers of pigs are only documented there in and after 1742 (Western Cape Archives and Records Service, Census Records J194-196, J198-200; Cape Archives Estate Papers MOOC 7/1/25). They were probably raised for personal consumption, firstly because there was little local market for pork, and secondly because the Elsenburg pigs were slaughtered very young, between six to eight weeks of age (Mentzel 1925: 101).

Identifiable cattle remains are rare at Elsenburg. The age data from the bones and dentition show that the few cattle were relatively old, with one individual slaughtered at about three years of age, and another near the end of its productive life. If the cattle were female, this might signify slaughter after their reproductive and milk yielding ages, and if male, after reproduction or draught usage were past. A later source, Hop's probate or *Staat en Inventaris* recorded after her death on 25-26 January 1776, describes a variety of cattle at Elsenburg. There are quantities of *trekoysen* or *trekbeesten* used as draught oxen and *koeyen en kalveren door malkederen*, which are milk cows with calves for milking. These are recorded in a ratio of two cows to each draught oxen. Relevant to the old cattle individual in the archaeological deposit, the inventory did record '*10 oude trekoysen*', or old draught oxen (MOOC 7/1/25 Cape Archives Estate Papers).

Only one horse specimen was identified in the sample. Horses are nearly invisible in the archaeological record, which contrasts with documents that record large numbers present at Elsenburg at that time. In 1749, a rough midpoint of the deposit, there were 50 horses at Elsenburg, comprising 5.0% of the total number of horses (n=1000) on 110 farms in all of Stellenbosch. Though this percentage is relatively low, it must be noted that 80 of these 110 farms had 10 or fewer horses each (Western Cape Archives and Records Service, Census Records J196). An inventory of horses at Elsenburg includes '*wagen paarden*,' or wagon horses, '*ryd paarden*,' or riding horses, and '*paarden in zood*,' or general horses outside (Western Cape Archives and Records Service, Cape Archives Estate Papers, MOOC 7/1/25). Horse farming was not a very lucrative business during the early 18th century, because the market was quickly glutted with fast-breeding imports (Kolben 1731b: 8; Mentzel 1921: 57-58). These details are informative when taken alongside information about the workshops at the farmstead. The inventory includes a wagonmaker's shop, possibly inferring an industry where horses were raised for the wagons produced on site (Western Cape Archives and Records Service, Cape Archives Estate Papers, MOOC 7/1/25). It is therefore understandable that although horses were used on the farm, they do not appear in the archaeological record of a kitchen dump because they were not eaten.

Even though Elsenburg lay in the country 50km from the Castle, wild mammals formed a minor proportion of the faunal sample. The low numbers of wild mammals at Elsenburg underscore the fact that it was a self-sufficient establishment where game was eaten only occasionally (Kolben 1731b: 116). In fact only the small bovids show direct signs of consumption by butchery and burning, though contemporary accounts confirm that other animals, like hares, were certainly consumed (Mentzel 1921: 76; Raven-Hart 1970: 26; Robertson 1945a: 10; Skead 1980: 630-636; Thom 1952: 223). This contrasts sharply with Oudepost I, the VOC frontier outpost where wild fauna made up about 71.4% of the MNI (if carnivores are included) in the terrestrial faunal assemblage (Cruz-Uribe and Schrire 1991: 96). Expanded colonial settlement severely diminished the numbers of wild bovids through habitat modification and overhunting (Mentzel 1921: 61; Mentzel 1925: 101; Mentzel 1944: 102; Raven-Hart 1970: 270; Skead 1987: 813-855), though very small buck persisted in the vicinity of the colonial settlements until the early 18th century and can still be seen today on mountain and country roads around the Cape (Skead 1980: 448-449, 456).

The presence of domestic fowl supports Mentzel's (1925: 101) statement that fowl were usually only kept on farms. Chickens were common and domestic ducks were present. The wild birds might have been hunted, as is suggested by the presence of bird shot in the deposit (Hart and Halkett 1993: 42-49). Starlings are the most numerous wild birds in the Elsenburg sample. They may have been shot as a pest control measure to protect grapes on the vines (Kolben 1731b: 157) or they may have also been cultivated, as suggested by a starling feeder found in the coarse earthenware collection from the Castle Moat (see Jordan, this volume).

Reptiles were common inclusions in the archaeological record, and while several burnt specimens suggest that they were eaten, they could not have provided large amounts of meat. No collecting patterns were observed in the reptiles, since both the turtles and tortoises were collected in subadult and adult stages of development. Also, size did not seem to be a factor during the collection of tortoises.

Moving to butchery and cooking, the Elsenburg fauna reflects a diet of roasts of mutton, beef, pork, and some wild game. Besides the consumption of major meat-yielding portions of the carcass, lower yielding parts, especially the skull, were also utilized. There is evidence of tongue removal in both sheep and cattle, and sheep crania were cut on the muzzle and the posterior of the orbits to remove the skin. In addition, crania were butchered to access the brain. Traditional recipes describe skinning before boiling calves' and sheeps' heads and then using brains and tongues together in another dish (Mennell 1985: i; Coetzee 1977: 66).

Beyond this, the Elsenburg fauna reveals the commercial use of animals on a working farm. First, the evidence suggests that sheep were skinned (Shaw 1997: 92-93). Second, the fauna is dominated by older animals with few markers of high status like lamb and veal (Hall n.d. e: 3; Hall 1992: 389-390; Thackeray 1989: 1). Admittedly Elsenburg does contain some elements that could be considered aspects of higher status. Young pigs were a delicacy and were raised for personal tastes, and the tortoises and turtles, especially their livers, were considered fine and delicate (Kolben 1731b: 214). Game was restricted to affluent folk in towns, though it was more easily accessed by anyone living away from the main settlement (Cruz-Uribe and Schrire 1991: 95; Mentzel 1925: 101; Van der Merwe 1995: 29).

Elsenburg needs to be contextualized as a link in the colonial stock trade with the indigenous Khoekhoen. By the mid-18th century, the Cape and Khoekhoen were severely depleted by the stock trade, intermittent war, and a devastating smallpox epidemic in 1713 (Elphick 1977; Guelke 1989; Penn 2005). Although we have no archival record of a VOC meat contract with Elsenburg (Schulz 2005: pers. comm.), in the mid-18th century Elsenburg regularly ranked amongst the largest stock holding farms in the Stellenbosch region (Western Cape Archives and Records Service, Census Records J188-J200). The archaeological record may be interpreted as showing a commercial meat enterprise, where sheep were marketed at the Cape settlement, eventually consigning older, mainly female ones to the kitchen dump at Elsenburg, and younger, mostly male wethers, older rams or females to the residues in the Castle Moat.

Conclusions

The goal of this project was to select a number of faunal samples that would reveal the operation of the VOC meat industry at the Cape. Each sample contributes to the picture of processes and dietary behavior and tests the claim that mutton was the staple meat source in the Cape cuisine (Mentzel 1925: 101). Two particular sites demonstrate that beef made a sizable contribution to the diet, though the numbers of cattle slaughtered often paled compared to those for sheep. In addition the reanalysis of the F2 Granary collection challenges its attribution to slaves (Hall n.d. e: 3; Hall 1992: 390; Hall 1999: 196; Hall 2008; Thackeray 1989).

These analyses illustrate how the VOC settlers applied their European husbandry practices to familiar stock in a new environment. The focus of the VOC at the Cape was to sustain profitable ventures between Asia and Europe and to this end, these diasporic Europeans focused on large scale meat production. They foreswore wool by breeding hairy sheep, and they abandoned the importance of dairy products by breeding local cattle for draft. In addition, we see a change in strategies through time. The earlier collections from Oudepost I and the Old Granary, show that more younger sheep (c. nine months to three years) were slaughtered in order to meet demands. As the 18th century progressed, colonial stock farming spread along the advancing Cape frontier, and farms like Elsenburg became sites of meat production where ewes were kept until older (c. four to ten years) to produce lambs and sustain the necessary herd numbers. Wethers, and likely some females not suitable for breeding, were reared to prime ages (c. two to six years) before being sent to locations of consumption.

This project explored two different types of consumption common at the Cape. Portions of the Moat residues as well as those from Oudepost DP represent mass slaughter of sheep and possibly cattle for ships or local markets. Donkergat residues represent kitchen refuse from garrison rations in the Castle interior. The Moat provides a glimpse into the number of animals, almost exclusively sheep, which were needed to meet the needs of the ships and other provisioning markets. These residues lack the meaty elements taken away from the abattoir. The garrison residues contrast with the Moat, with greater proportions of the animals, and consequently the amount of meat, derived from cattle and even pig being fed to the soldiers. In addition to the economics of the meat industry, Elsenburg reveals how herd management meant that different age sheep were marketed compared to those being consumed at home.

Our focus on taphonomic traces and zooarchaeological details allows the five presented faunal samples to be more soundly compared on both intra- and inter-site levels. The analyses of these various elements of the greater meat industry fill some gaps of the sparse and disjoined historical record of the Cape meat industry, an enterprise that allowed the VOC to sustain the colonial settlement as a crucial node within the budding international mercantile world system (Heinrich and Schrire 2011).

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by Adam Robert Heinrich

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VOC 4047. Overgekomen brieven en papieren van Kaap de Goede Hoop 1700-1701. Folio 533, 547, 554, 571, 583, 589. Journal en grootboeck van de winckel.

Western Cape Archives and Records Service

M2/17: Plan of settlement at the Cape of Good Hope. 1693

J188 Census Records

J189 Census Records

J193 Census Records

J194 Census Records

J195 Census Records

J196 Census Records

J197 Census Records

J198 Census Records

J199 Census Records

J200 Census Records

MOOC 7/1/25 Cape Archives Estate Papers

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CHAPTER 4

Asian Ceramic Collections from VOC Sites at the Cape

Jane Klose and Carmel Schrire

Introduction

A small toad glowers from the cover of this book. It is a stoneware Chinese water dropper, used to moisten the ink stick before brushing a design onto a scroll. It lay buried in the rough and tumble of broken stuff in the Castle Moat waiting to say something about its past, but was apparently stymied all along the way. Retrieved some 265 years later, its actual provenance was missed, and it ended up as M90/NP-OST-2, the ignominious 'NP' denoting a 'non-provenanced' object whose age could not be ascribed by *in situ* associations but had to be dredged out of the presence of similar objects in a Chinese wreck of about 1725. Likewise its function at the Cape is unclear: water droppers were utilitarian objects in China and Southeast Asia, but here at the Cape, as elsewhere in the West, quills and bottled ink sufficed. However, in China the toad is associated with luck in gambling and represents a popular Feng Shui charm for prosperity (John Fong 2013, pers. comm.), so that a feasible explanation for its presence at the Cape was as a keepsake or good luck charm that was possibly slipped into the private consignment of a wealthy Cape merchant, or carried in from the East as a bauble in the pocket of a Company man. Our little toad was never apparently used and never damaged: it might have been treasured and it might have bought luck, but for all this, it was eventually lost in the great garbage pit of the Castle Moat.

The analysis of Asian ceramics in VOC (Dutch East India Company) sites at the Cape of Good Hope seeks to make sense and order out of things like the little, spotted toad and its associated mass of broken stuff. The Asian collections from sites at the Cape of Good Hope emanated from the trade networks operating between Europe and Asia that date from the late 15th century. Contrary to claims of the discovery of the Cape by a Chinese fleet in 1421 (Menzies 2002), and apart from the possibility that the earliest recorded wreck of 1505 might one day be found (Turner 1988: 11), the earliest dated Asian ceramics in South Africa come from the camp made by survivors of the wreck of the *São Gonçalo* (1630) (Klose 2007: 130). Later collections come from other shipwrecks and from numerous settlements established by the VOC after 1652 (see Chapters 1 and 2).

The VOC at the Cape imported ceramics from Europe and Asia and also produced coarse earthenware for daily use (see Chapter 5). Asian ceramics predominate in collections from excavated sites and archival probates of the 17th and 18th century (Klose 1993: 71; Malan 1993, 2007). These wares became important due to their price, quality, aesthetics, and resilience. The Cape was closer to the VOC entrepôts in Asia than it was to Holland, making it cheaper for the thrifty Company to provision the Cape from Batavia (Java) than from Amsterdam. Asian ceramics, being high fired and well glazed, were stronger and easier to keep clean than their European counterparts. In addition, they were aesthetically pleasing and better able to withstand the thermal stress involved in preparing the hot beverages like tea, coffee, and chocolate.

Analytical Methods

The study of Asian ceramics at the Cape presented here has been in the making for many years. It began when the authors first met in 1984 during the excavation of Oudepost I (Schrire 1995: 81-82). In 1988, Jane Klose joined the Archaeology Contracts Office in the Department of Archaeology at the University of Cape Town as the curator of Asian finds. She studied the collections being excavated at the Castle and other Cape sites (Klose 1993). She completed a Master of Arts dissertation on the excavated collections from four 17th-18th century

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Cape sites (Klose 1997), and went on to compare these results in greater detail with British and Dutch collections as well as those with finds from key South African shipwrecks, including the *São Gonçalo* (1630), the *Oosterland* (1697), and the *Bennebroek* (1713) (as per Klose 2000). Recently she issued a guide to the Cape ceramic collections (2007). Throughout her work she was guided and inspired by Antonia Malan whose skills helped shepherd her work to completion.

It is important to understand from the outset that the present analysis is a work-in-progress and a preliminary guide to the Asian collections at the Cape. In the belief that important clues to the nature of a collection might lie in the small fragments, it does not select the largest, best, or 'most-representative' vessels, but instead presents a complete catalog of all but the tiniest sherds. Although there are a number of catalogs of Asian shipwreck collections, there are very few comprehensive ones of occupational and kiln sites. As a result, the finds presented here rely heavily for comparisons on descriptions of singular, intact objects listed in museum and sales catalogs. The analyses that follow are intimately linked to the catalogs in the enclosed CD, whose citations appear in the references at the end of this chapter.

Our Access database was devised by Elliott Jordan in 2003 and lists the following key features.

Object Number

Objects are labelled to different extents by Site, Level, Provenance Type, and Number, as follows.

Site

Three sites are analyzed namely the Castle Van der Stel Moat (M90), the Old Granary in Block F2 at the Castle (CA88.F2), and Oudepost I (OPI) (see Chapter 2).

Level

Objects from the Moat (M90) are ascribed to one of five levels, reading from top to bottom, SF (Surface), A1, A2, B and C. The Old Granary F2 finds come from one of seven phases that read from top to bottom, Ph7 to Ph1. Artifacts at Oudepost I are ascribed to unit and level. In all cases, unprovenanced material is listed as 'NP' (see Chapter 2).

Provenance Type

Artifacts are labeled according to six provenance types, namely:

1. CPO: Chinese Export Porcelain
2. JPO: Japanese Export Porcelain
3. CPW: Coarse Porcelain Ware (Chinese unless otherwise stated)
4. IPF: Islamic Persian Fritware (also referred to as Stonepaste)
5. OST: Asian (formerly 'Oriental') Stoneware
6. AEW: Asian Earthenware

Object Number

These run consecutively within the provenance type, as CPO-001, JPO-01, etc.

Numbers/MNV

The number of sherds is presented together with the MNV (Minimum Number of Vessels). The MNV is ideally derived from intact and partially reconstructed vessels or from rims and foot-rings, but may occasionally be based on recognizable body sherds.

Unlike our analyses of coarse earthenware and stoneware that employ only those sherds that can be incorporated in the MNV count (see Chapters 5 and 6), the Asian catalog contains all sherds, barring the tiniest fragments. Where cross mends occur, the following rule of thumb is used: if the mend occurs in two adjacent levels, the MNV count is given to the level with the most sherds; if equal numbers of sherds are present in adjacent levels, a spot choice is made; and if three levels are involved, the MNV count accrues to the middle one.

These protocols work for the Castle sites (Van der Stel Moat (M90) and the Old Granary (F2)), but they operate less well where the collection from Oudepost I (OPI) is concerned. Although MNV can be tabulated for the entire site, post-depositional disturbances have resulted in such wide scatters of sherds from single vessels that ascription to unit and level can only confidently be made using sherd counts.

Form/Subform

Form reflects the basic shape of the piece (cup, bowl, plate, pouring vessel). Subform refers to scale (small, medium, large) and particularity (cup, soup plate, jug, teapot). This system works most of the time, but not when we tabulate objects like teapots, which are subsumed as 'pouring vessels' and 'cover/lid' and may be retrieved as such later. We recognize that there is a considerable overlap in that 'cups' have subforms like 'cup (bowl)' and 'cup (handled)' and that saucers might be small dishes rather than saucers for cups. Size is inferred wherever possible from rim diameters.

Ware, Provenance Type, Decoration

Ware

Analyses of pre-19th century ceramics employ three broad ware categories, namely earthenware, stoneware, and porcelain. Rarely occurring Islamic Fritware (Stonepaste) is classed as an imitation or early soft-paste porcelain and subsumed under 'Porcelain.' The classification conforms to the order in which these wares were produced and became known in Europe. It is useful in that the three types are easily recognizable to the naked eye and can be confirmed by simple physical tests. In contrast, traditional Chinese potters recognized two main ceramic categories: low fired ware (*tao*), which includes earthenware and some low-fired stoneware, and high-fired ware (*ci*), comprising porcelain and stoneware. In other words, instead of making the European distinction between porcelain and stoneware, they regarded porcelain as a development of stoneware, inasmuch as both employ the same raw materials and kiln technology (Kerr and Wood 2004: 9-11).

The ware types used in our analyses fit into the following four main categories.

Porcelain (Asian): Chinese Export Porcelain (CPO)
Japanese Export Porcelain (JPO)
Coarse Porcelain Ware (CPW)

Chinese Export Porcelain (CPO) and Japanese Export Porcelain (JPO) are glazed, high-fired, medium to fine quality wares. Their characteristic high firing at 1250° C fused the raw material into a strong, white-bodied, vitreous, translucent material (Klose 2007: 38-39). Porcelain was first made in northern China around 600 AD using a single raw material (secondary kaolin) but almost all the Chinese export porcelain found so far on Cape land sites and shipwrecks, except for *blanc-de-chine* from the Dehua kilns and a few sherds of *greenware* (celadon) from Longquan, was made in Jingdezhen in southern China using two separate components, namely kaolin, a white firing primary clay, and *petuntze*, finely ground porcelain stone that also acted as a flux (Wood 1999: 58-59). Coarse Porcelain Ware (CPW) is a glazed, coarse quality, high-fired ware predominantly made in Fujian Province. It was made from a single component (porcelain stone) and fired at a slightly lower temperature than export porcelain (Ho 1988: 14). Cape wares range from coarse, grey to white porcelaneous stonewares to an almost under-fired granular, cream to buff-bodied stoneware (Klose 1997: 95). Low grade cobalt was used for decoration (Kerr and Wood 2004: 680).

Islamic Persian Fritware (IPF)

This is a glazed, low-fired, white-bodied ceramic made in imitation of Chinese porcelain. It was made from crushed pure quartz, an alkaline glass frit, and fine white clay and fired at about 1000° C (much lower than porcelain) to give a slightly translucent ceramic. It originated in Egyptian faience (ca. 4,000 BC) and was subsequently developed by Islamic potters in Egypt and the Near East (including Persia) around the 10th-13th centuries AD. In the Savafid period (1502-1722), high quality fritwares were produced in Persia that closely resembled contemporary Chinese export wares (Allen 1991, Kerr and Wood 2004: 735 ff; Crowe 2002: 22; Klose 2007: 50; Rogers 2002: 10).

Asian (formerly 'Oriental') Stoneware (OST)

This is a glazed or unglazed, high-fired ware. It was made from a single component, stoneware clay, fired above 1200° C and ranges in texture from coarse to fine. Stoneware has a dense, vitrified, opaque, stone-colored body. The first stoneware was produced in northern China early in the Shang dynasty (1500-1028 BC), followed by manufacture in southern China. Utilitarian coarse stoneware pots and jars, usually glazed, circulated in the ambit of the VOC in Europe and Asia (Klose 2007: 33). China also produced a refined, unglazed, slightly porous 'red'/'purple' stoneware known as Yixing or *Zisha* from clay found in the Yixing district in the Yangtse river basin. Yixing tea wares and water droppers, brush pots, pen rests, etc. became popular with scholars and intellectuals from the mid-16th century. Tea wares were specially made for the European market and were exported to Europe from the 1670s through the 1700s and beyond, mainly as teapots, but also as other tea wares, including cups, saucers, small dishes, tea caddies, and decorative wares (Klose 2007: 34).

Asian Earthenware (AEW)

These Cape examples are unglazed, soft, micaceous, low-fired wares, colored orange, grey-black and thinly potted, and are sometimes found with an outer covering of pink slip (Klose 2007: 30). This non-European earthenware is assumed to be of Southeast Asian (Philippine) origin, though there is no consensus as yet (Klose 2007: 30; De la Torre 1995; Mijares and Jagoon 1996).

Provenance Type

Ceramics are categorised here under the following six groups.

Chinese Export Porcelain (CPO)

China and Japan made fine export ware for various markets, including Europe and the Middle East. The Chinese export fine porcelain found at the Cape was made in private kilns in Jingdezhen. From the 18th century on, many blue-and-white and undecorated export porcelains were taken from Jingedezhen to Canton (present day Guanzhou) to be decorated with colored enamels (Klose 2007: 39-40). Most export ware at the Cape was 'Official ware' imported as provisioning by the VOC, with smaller amounts imported via private trade. These latter wares had a wider range of shapes, were of better quality, more elaborate and costly, and were easily distinguishable from the common official imports (Klose 2007: 40).

Japanese Export Porcelain (JPO)

The first Japanese porcelain was made about 1000 years after the first Chinese porcelain and was produced in Arita in first decades of the 17th century. The earliest wares were underglaze blue-and-white (ubw), with enameled wares (ena), appearing in the 1630s. Japanese porcelain was first produced for local consumption and only later for export (Impey 2002: 13; Klose 2007: 45).

Coarse Porcelain Ware (CPW)

Coarse porcelain ware was made for export, mostly in private kilns in Fujian province in south-east China, with smaller quantities being produced in adjacent and nearby countries. Coarse porcelain was exported throughout the inter-Asiatic trade network particularly to Southeast Asia, reaching expatriate Chinese communities world-wide in the 19th century (Klose 2007: 48). Most pieces, usually dishes and bowls, have a 'coarse' porcelain/grey stoneware-like body, often with inner biscuit rings on the upper surface and sandy foot-rings, and are crudely painted in cobalt blue that ranges in hue from pale greenish-grey to dark inky blue. Blue-and-white wares were made after the early Qing dynasty up to the present time. The few Cape forms decorated in overglaze red and green may not have come from the Fujian kilns.

The form and decoration of Cape CPW occasionally resemble and sometimes copy contemporaneous export porcelain from Jingdezhen. It was called 'coarse' or '*grove/grof porselein*' by both the Chinese and the first VOC traders (Volker 1971; Vos 1985: 15). The Chinese called it '*min-yao*' or 'peoples' ware.' It was cheaper than fine export wares, and although it was considered too crude for the European market, it was requisitioned for distant stations at the Cape, along the East African coast, and on the Indian Ocean island of Mauritius (Jörg 1986; Klose 1993: 74; Klose 2007: 48-49).

Within this group are Swatow-style (Zhangzhou) vessels. The term itself refers to a style of coarse porcelain, stoneware-like ceramics that were made in kilns in Zhangzhou (known to western merchants as 'Swatow') near the coastline of Fujian Province in southern China. They were made from 1567 to 1662 as trade wares for export to Southeast Asia, Japan, the Middle East, and occasionally Europe (Harrisson 1979: 12; Harrisson 1995: 1-5; Volker 1971: 193-194; Kerr 2009: 14). They have a dense, grey-beige body with an unglazed or partially glazed base, and are decorated in blue and white, polychromes or monochromes, with or without incising. Foot-rings and bases are often encrusted with coarse kiln grit, and the unglazed areas are often burned orange (Klose 2007: 49). From about 1609 on, the VOC sold them to Japan, where they grew increasingly popular. They were highly prized in Southeast Asia where they became family heirlooms for display at ceremonies and celebrations.

*Islamic Persian Fritware (IPF)*_

These thickly potted, glazed ceramics have a opaque, sandy/sugary body that has discolored to a greyish color (Klose 2007: 50). Early European imitators of Chinese porcelain used compositions and methods of manufacture based on Islamic Fritware (Kerr and Wood 2004: 747). Their resemblance to Chinese porcelain accounted for VOC orders placed between 1652 and 1682, when civil war in China disrupted export porcelain shipments there (Crowe 2002: 22). The earliest recorded mention in the VOC Cape archives are 'Persian ware' dishes and bowls listed in 1666 in the first official shipment of ceramics imported there (Klose 1993: 71; 2007: 50; Volker 1971: 115; Woodward 1974: 165).

Asian (formerly 'Oriental') Stoneware (OST)

These are glazed or unglazed, mainly grayish-bodied storage jars called 'martevans' or 'martebans' by merchants for the eponymous port of Marteban in Myanmar (Burma), from where they might have been shipped, but where they were not actually made (Klose 2007: 33-34). Cape martevans include a few examples from Thailand. OST also includes Yixing, which is a fine-bodied Chinese 'red' stoneware that appears in the Cape collections mainly as teapots. They are listed in VOC day books as being in use in Batavia in 1679 and 1680 (Volker 1971: 216-7) but may have been exported to Amsterdam before that time (Klose 2007: 35). They are still made and used today.

Asian Earthenware (AEW)

These are non-European flasks and pots. They are unglazed and thinly potted, with globular or molded bodies with long necks and incised decoration. They are rare in Cape locales and occur mainly on shipwrecks, including the *São Gonçalo* (1630) and the *Oosterland* (1697). Their presence on foreign wrecks like the *San Diego* (1600) suggests an Asian or possibly a Philippine origin.

Decoration

Underglaze blue (ubw)

Underglaze blue decoration on Asiatic porcelain was produced by painting cobalt pigment designs on to the dry, unfired, leather-hard clay and then covering it with a clear glaze and firing once. A variety of patterns is found in the export porcelains (CPO and JPO) as well as in the Coarse Porcelain Ware (CPW), where stamped/stenciled decorations are also present. A single variety is listed under Islamic Persian Fritware (IPF).

Most of the underglaze blue porcelain at Cape is classed as 'ordinary' ware, with smaller quantities of fine Kangxi and isolated pieces classified as 'Transitional Ware,' a 20th century term for porcelain from Jingdezhen that was produced during the unrest between the Ming and Qing dynasties between 1620 and 1683 (Kilburn 1981; Little 1984). During this time strict Imperial kiln control waned, and the potters were free to experiment with new designs and shapes for wealthy Chinese markets and to export to places like Holland and Japan.

*Brown glazed (brown gl.)*_

This is a Chinese monochrome-glazed porcelain that, apart from the base, is partially or completely covered in brown iron glaze. The glaze varies in color from pale gold or greyish shades to coffee colored (*café au lait*) and dark brown (*cappucine*). It was sometimes called 'Batavian ware' in Europe and, from the 14th century onwards, was produced in great quantities for export to Europe in the late 17th and 18th centuries. Forms include tea wares such as sturdy cups and saucers made for export to Europe, particularly to Holland, in the 18th century. Additional decoration is commonly in underglaze blue. Enameling, with or without underglaze blue, may occur either on the white inner surface of cups and bowls or on white (commonly leaf-shaped) panels within the brown-glazed surfaces (Martin and Holley 1993).

Enameled wares

Chinese porcelain decorated with overglaze colored enamels appeared in the 12th-13th centuries (Harrison-Hall 2001: 55). It was not made in any quantity until later in the Ming dynasty (1368-1644). Enamels were particularly used to decorate export wares in the 17th and 18th centuries (Scott 1987). This type of porcelain was more expensive to produce than underglaze blue wares, as it needed at least one extra firing to fuse the colored enamels to the surface of the glazed vessel.

Our collections include porcelain decorated in *famille verte* and Chinese Imari enamels (Klose 2007). *Famille verte* predominated in the last quarter of the 17th century and to a lesser extent in the first quarter of the 18th century and beyond. It is a style of Chinese enameled porcelain that uses a palette of mainly translucent colors including green (*verte*), yellow, brown, and aubergine, plus opaque black and red, and sometimes underglaze blue. Green enamels predominated on early wares (Jörg and Van Campen 1997; Klose 2007: 42).

Chinese Imari (the Dutch term is '*Chinees-Japans*') mimicked Japanese Imari but was less costly than Japanese wares, which were always more expensive than the equivalent Chinese ones. It was produced from about 1700 on and featured underglaze blue decoration with additional overglaze red enamel and gilt, and occasionally extra colors as well. We limit the term 'Japanese Imari' to underglaze blue, primarily with red enamels and gilt. Both Chinese and Japanese wares might be decorated with an 'enamel-only' decoration, which we classify as a separate category, though other specialists subdivide the Japanese wares into several specific wares/families (Impey 2002).

Molded, appliqué

Press-molded and appliqué decorations appear on Yixing stoneware that range in color from purply-red through terracotta to yellow. They are common on teapots made for the Western export markets and are thought to be the first teapots used by Europeans. Stoneware martevans often have applied molded decoration of bearded masks and medallions.

Description (including patterns and marks)

These features are listed where present. The incidence and identification of enameled wares in archaeological contexts might be underreported because of extreme fragmentation of their exceptionally thin bodies, because colored enamels degrade over time and obscure the original palette, or because fragmented sherds may come from an undecorated part of an enameled vessel. Certain terms including 'Botanical,' 'Grassy Rock,' 'Spotted Dog,' and 'Incised' were devised for this analysis and are not internationally recognized.

Reference

All references begin with dateable shipwreck finds listed chronologically, followed by standard references listed alphabetically and personal communications.

Site Reference (including cross mends)

Cross mends are listed first, followed by comparisons within the same level, then within the same site, and finally with the other two catalogued Cape sites.

Date

Almost all the porcelain found at the Cape to date was made during the Qing dynasty (1644-1911-12), though it is difficult to narrow this range at times. Unlike mean ceramic dating of post mid-18th century European ceramics, where designs are immediately identifiable and manufacturing history is known, the lack of precise records from merchants and kilns in China and Japan makes it hard to estimate the date of production. Our catalogs show that similar objects might not carry identical date estimates due to slight variations that signify different production times. Some popular patterns were reordered at a later date such as Aster pattern dishes and tea ware with panels of lotus sprays. The four dating methods used are as follows.

Referenced Range

These emanate directly from the referenced sources. Our best dated finds here are cups and saucers showing the Rotterdam Riots of 1690, whose images are the same as those found on a medallion struck in that year (Howard and Ayers 1978: 60 no.15; Veiga 1989: 36; Christiaan Jörg 2005, pers. comm.).

Referenced Period

These estimates are based on historical records of European trade in Asian ceramics. During the 17th century, the VOC trade fluctuated between China and Japan. Chinese exports from Jingdezhen were disrupted by unrest, and supplies of sui fine export porcelain all but ceased from around 1647-48 until the early 1680s (Viallé 2000: 176). The VOC therefore turned to Japan; their first recorded order dates to around 1650, when the first of many shipments of white apothecary ware that mimicked Dutch tin glazed forms reached Batavia (Impey 1989: 4; Volker 1971: 125). The last VOC order for this ware was apparently shipped in 1735 (Volker 1959: 73) but stocks may have been available until the1740s (Kyushu 2000: 135 no.303). These wares were not for resale but were regularly supplied for VOC use by officials in Batavia, on Company stations, and on ships.

Official orders for blue-and-white and enameled export-trade porcelain appear around 1660 (Viallé 2000: 176-183). Following the re-opening of the Jingdezhen kilns in the early 1680s, China resumed mass production of specially ordered export wares for the VOC. The final recorded official VOC shipment to Europe from Japan dates to 1683, but this may not have been the last actual shipment. Despite the fact that Japanese wares cost up to four times as much as Chinese ones, the VOC continued to order porcelain from Japan for their Asian customers, and private traders continued to buy this ware until, and possibly beyond, the 1730s. From the 1660s until the 1740s, the Company also maintained a small but steady supply of blue-and-white kraak-style 'Company Plates' and other vessels with the VOC monogram, as well as similar wares in blue-and-white without the monogram. It was supplied for use by officials in Batavia, for VOC ships, and for outlying VOC settlements like the Cape (Klose 2007: 45-46; Impey 2002: 19).

It is more difficult to date the production and export of Coarse Porcelain Ware (CPW) with any precision. It occurs at the Cape in 17th to the 19th century contexts and is most popular in 18th century sites. These wares also appear in Cape inventories as vessels found in kitchens and other rooms, but there is no unambiguous evidence linking them to use by slaves (Klose 2007: 49; Malan 2007). Swatow-style ware had a short period of production, about 1567 to 1662 (Kerr 2009: 14)

Islamic Persian Fritware /stoneware (IPF) made its earliest recorded appearance at the Cape as dishes and bowls listed as 'Persian ware' in the first official shipment of ceramics imported by the VOC in 1666 (Klose 1993: 71, Klose 2007: 50; Volker 1971: 115; Woodward 1974: 165). Official VOC trade in Islamic wares was very small from 1652 to 1682 and ceased when the Jingdezhen kilns reopened in the 1680s (Klose 2000: 74; Volker 1971: 113-16). These estimates ought to provide a valuable *terminus post quem* for the presence of such wares in archaeological contexts, were it not for the fact that Islamic ware appears later on VOC shipwrecks such as the *Oosterland* (1697) and *Bennebroek* (1713), suggesting that its unofficial export continued through private trade long after official VOC trade in Islamic wares ceased (Klose 2000).

Asian earthenwares have no references in the Cape archives or literature to date but are similar to those found in foreign shipwrecks such as the *São Gonçalo* (1630) and the *Oosterland* (1697).

Shipwreck Dates

These refer to dated shipwreck cargoes. They should not be seen as absolute dates for ware production, because although dates of lading and wrecking might be known, some designs might have exceeded these limits by decades. A case in point is the Aster pattern found on Chinese Export Porcelain (CPO) that appears on the cargo of the No.1 Wanjiao Shipwreck (1690s), but continued in production until the early 18th century and beyond (Christiaan Jörg 2006, pers. comm.).

JK (Jane Klose) 'Guestimate'

These are estimations based on familiarity with the collections.

Measurements

These were listed in the original Access catalogs but are not shown here due to constraints of space.

Illustrations

Presentation of the illustrated catalog provoked much discussion. This being an archaeological catalog, many of our finds consist of small but recognizable sherds. Instead of presenting each object separately, Klose felt that a better appreciation might be gained by viewing most objects collectively alongside similar pieces.

Catalogs and color images of some figures appear in the enclosed CD. The scale used for all artifacts is calibrated in one centimeter increments. 'Inside' and 'outside' denote the surface shown..

Analysis of Sites

The analyses that follow refer repeatedly to crucial objects listed in the catalogs, but do not reproduce its listings or descriptions in full. Intersite comparisons are drawn as the narrative proceeds and occasionally are restated in the concluding remarks.

Castle: Van der Stel Moat (M90)

The Asian ceramics from the Van der Stel Moat (M90) constitute the largest archaeological collection of its kind in Southern Africa (see Chapter 2). The Moat was initially a wet trench that became rapidly filled with dumped residues during the late 17th and early 18th century. We deal almost entirely with material from the five successive levels namely Surface (SF), A1, A2, B, and C, with only a few mentions of Non Provenanced finds, called 'NP' (see Chapter 2).

Numbers/MNV

There are 6146 sherds with a MNV of 1114, giving a ratio of 5.5:1. Many MNV counts are based on a single sherd, confirming its context in a secondary fill where many of the original broken pieces were pulverized beyond recognition, probably when they were dumped alongside building rubble in the Moat (Tables 4.1a,b).

Table 4.1a. Van der Stel Moat (M90): Asian ceramic provenance type distribution by Level (sherds), excluding A1-JPO/CPO-1

Prov. Type	Level										Total	
	SF		A1		A2		B		C			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
CPO	58	57.4	1239	76.8	2418	76.3	774	90.4	373	91.4	4862	79.1
JPO	5	5.0	78	4.8	86	2.7	30	3.5	19	4.7	218	3.5
CPW	32	31.7	254	15.8	595	18.8	39	4.6	12	2.9	932	15.2
IPF	-	-	-	-	8	0.3	-	-	-	-	8	0.1
OST	6	5.9	39	2.4	54	1.7	13	1.5	4	1.0	116	1.9
AEW	-	-	3	0.2	7	0.2	-	-	-	-	10	0.2
Total	101	100.0	1613	100.0	3168	100.0	856	100.0	408	100.0	6146	100.0

Table 4.1b. Van der Stel Moat (M90): Asian ceramic provenance type distribution by Level (MNV), excluding A1-JPO/CPO-1

Prov. Type	Level										Total	
	SF		A1		A2		B		C			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
CPO	23	59.0	213	75.0	364	71.4	134	79.8	91	80.5	825	74.0
JPO	5	12.8	15	5.3	27	5.3	13	7.7	9	8.0	69	6.2
CPW	9	23.1	46	16.2	107	21.0	14	8.3	9	8.0	185	16.6
IPF	-	-	-	-	1	0.2	-	-	-	-	1	0.1
OST	2	5.1	9	3.2	8	1.	7	4.2	4	3.5	30	2.7
AEW	-	-	1	0.3	3	0.6	-	-	-	-	4	0.4
Total	39	100.0	284	100.0	510	100.0	168	100.0	113	100.0	1114	100.0

Table 4.2a. Van der Stel Moat (M90): Asian ceramic vessel form distribution by Level (sherds), excluding fragments, and undiagnostic and unidentified sherds

Form	Level										Total	
	SF		A1		A2		B		C			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
bottle/flask	1	1.4	16	1.8	6	0.3	5	1.1	3	1.4	31	0.8
bowl	23	33.3	130	15.0	426	19.4	94	21.3	50	24.0	723	19.1
bowl covered	-	-	9	1.0	20	0.9	-	-	-	-	29	0.8
cover/lid	-	-	14	1.6	3	0.1	3	0.7	-	-	20	0.5
cup	11	15.9	132	15.2	364	16.5	99	22.4	44	21.2	650	17.2
cup/saucer	-	-	1	0.1	-	-	-	-	-	-	1	x
dish	15	21.7	155	17.9	500	22.7	29	6.6	27	13.0	726	19.2
dish/bowl	1	1.4	4	0.5	101	4.6	-	-	1	0.5	107	2.8
figure	-	-	-	-	1	x	-	-	-	-	1	x
figure/ornament	-	-	6	0.7	2	0.1	2	0.5	1	0.5	11	0.3
finial	-	-	-	-	-	-	1	0.2	1	0.5	2	0.1
jar/pot	6	8.7	5	0.6	40	1.8	3	0.7	-	-	54	1.4
jar/pot covered	-	-	-	-	-	-	-	-	1	0.5	1	x
plate	10	14.5	182	21.0	323	14.7	51	11.5	19	9.1	585	15.4
plate/dish	-	-	15	1.7	28	1.3	1	0.2	5	2.4	49	1.3
pouring vessel	-	-	28	3.2	7	0.3	9	2.0	2	1.0	46	1.2
saucer	2	2.9	169	19.5	377	17.1	142	32.1	53	25.5	743	19.6
spout	-	-	-	-	-	-	1	0.2	-	-	1	x
stemmed vessel	-	-	-	-	1	x	-	-	-	-	1	x
vase	-	-	1	0.1	1	x	2	0.5	-	-	4	0.1
vase/jar	-	-	1	0.1	-	-	-	-	1	0.5	2	0.1
Total	69	99.8	868	100.0	2200	99.8	442	100.0	208	100.1	3787	99.9

Form/Subform

The wide variety of recognizable forms includes bottles, bowls, cups, dishes, jars, plates, pouring vessels (teapots), saucers, and vases (Tables 4.2a, b). Tea wares are popular, and include a Chinese (or possibly Japanese) teapot finial (B-CPO-142). Cups and saucers form 36.8% of the total sherds and 44.7% of the total MNV, with saucers decreasing markedly in the uppermost level. Most of these tea wares do not match, suggesting that the majority of them found here did not emanate directly from broken shipments but were actually used before discard. Hollow wares like bowls and dishes form 41.9% of sherds and 36.5% of MNV, as opposed to plates that constitute 15.4% by sherd count and 11.3% by MNV.

Ware, Provenance Type, Decoration

Ware

All four types of ware and all six provenance types are found here.

Table 4.2b. Van der Stel Moat (M90): Asian ceramic vessel form distribution by Level (MNV), excluding fragments, and undiagnostic and unidentified sherds

Form	**Level**										**Total**	
	SF		**A1**		**A2**		**B**		**C**			
	Nos.	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**
bottle/flask	1	2.6	3	1.1	3	0.6	2	1.3	2	1.8	11	1.0
bowl	8	21.1	39	14.1	91	18.1	24	15.1	14	12.5	176	16.2
bowl covered	-	-	3	1.1	4	0.8	-	-	-	-	7	0.6
cover/lid	-	-	8	2.9	3	0.6	3	1.9	-	-	14	1.3
cup	7	18.4	49	17.7	91	18.1	37	23.3	26	23.2	210	19.3
cup/saucer	-	-	1	0.4	-	-	-	-	-	-	1	0.1
dish	10	26.3	42	15.2	115	22.9	20	12.6	17	15.2	204	18.7
dish/bowl	1	2.6	3	1.1	5	1.0	-	-	1	0.9	10	0.9
figure	-	-	-	-	1	0.2	-	-	-	-	1	0.1
figure/ornament	-	-	2	0.7	1	0.2	1	0.6	1	0.9	5	0.5
finial	-	-	-	-	-	-	1	0.6	1	0.9	2	0.2
jar/pot	2	5.3	1	0.4	4	0.8	1	0.6	-	-	8	0.7
jar/pot covered	-	-	-	-	-	-	-	-	1	0.9	1	0.1
plate	8	21.1	35	12.6	55	11.0	15	9.4	10	8.9	123	11.3
plate/dish	-	-	3	1.1	10	2.0	1	0.6	3	2.7	17	1.6
pouring vessel	-	-	4	1.4	4	0.8	5	3.1	2	1.8	15	1.4
saucer	1	2.6	82	29.6	113	22.5	47	29.6	33	29.5	276	25.4
spout	-	-	-	-	-	-	1	0.6	-	-	1	0.1
stemmed vessel	-	-	-	-	1	0.2	-	-	-	-	1	0.1
vase	-	-	1	0.4	1	0.2	1	0.6	-	-	3	0.3
vase/jar	-	-	1	0.4	-	-	-	-	1	0.9	2	0.2
Total	38	100.0	277	100.2	502	100.0	159	99.9	112	100.1	1088	100.1

Provenance Type

All six types occur here. Asian porcelains predominate in total sherd counts (97.8%) and total MNV (96.8%) (Tables 4.1a, b). Chinese Export Porcelain (CPO) constitutes 79.1% of the sherds and 74.0% of MNV and far outstrips Japanese Export Porcelain (JPO), which attains only 3.5% of sherds and 6.2% of the MNV counts. Coarse Porcelain Ware (CPW) is the second most common ware, constituting 15.2% of the sherds and 16.6% of the MNV. The remaining components of Islamic Persian Fritware (IPF), Asian Stoneware (OST), and Asian Earthenware (AEW) together constitute only 2.2% of sherds and 3.2% of the MNV. The most striking temporal trend is the rapid increase of CPW over time at the expense of CPO. IPF is restricted to Level A2, and OST (mainly Yixing teapots) rises slightly over time.

Decoration

Underglaze blue is the predominant decoration here, occurring on more than 90% of the Asian porcelains and, in association with brown glaze, on 7.6% of all decorated sherds and almost 10% of the MNV tally (Tables 4.3a, b). The combined enameled wares constitute 8.6% of the total decorated sherds and 7.6% by MNV. Within this category are minor amounts of Chinese Imari and *famille verte*, and small though they may be, their presence is important due to the implications carried for dating new elements at the Cape (as discussed later in this section). The Asian Stoneware category (OST) includes vessels with molded and appliqué decorations (see Table 4.4a).

Table 4.3a. Van der Stel Moat (M90): Asian porcelain (CPO, JPO, CPW) decoration distribution by Level (sherds)

Decoration	**Level**										**Total**	
	SF		**A1**		**A2**		**B**		**C**			
	Nos.	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**
underglaze B&W	**78**	**97.5**	**1471**	**95.3**	**2730**	**90.3**	**727**	**87.7**	**359**	**90.7**	**5365**	**91.4**
ubw	76	95.0	1371	88.8	2443	80.8	695	83.8	333	84.1	4918	83.7
brown gl.ubw	2	2.5	100	6.5	287	9.5	32	3.9	26	6.6	447	7.6
combined enameled wares	**2**	**2.5**	**73**	**4.7**	**294**	**9.7**	**102**	**12.3**	**37**	**9.3**	**508**	**8.6**
brown gl. enam. on brown gl.	1	1.3	1	0.1	-	-	-	-	-	-	2	x
brown gl. only	-	-	1	0.1	-	-	-	-	1	0.3	2	x
ubw & enamels	-	-	29	1.9	96	3.2	5	0.6	27	6.8	157	2.7
Chinese Imari	-	-	35	2.3	102	3.4	12	1.4	-	-	149	2.5
Chinese Imari + other colors	-	-	-	-	17	0.6	1	0.1	-	-	18	0.3
enameled unidentified	-	-	-	-	-	-	-	-	5	1.3	5	0.1
enamels only	1	1.3	6	0.4	31	1.0	14	1.7	-	-	52	0.9
famille verte	-	-	1	0.1	48	1.6	70	8.4	4	1.0	123	2.1
Total	**80**	**100.0**	**1544**	**100.0**	**3024**	**100.0**	**829**	**100.0**	**396**	**100.0**	**5873**	**100.0**

Table 4.3b. Van der Stel Moat (M90) Asian porcelain (CPO, JPO, CPW) decoration distribution by Level (MNV)

Decoration	**Level**										**Total**	
	SF		**A1**		**A2**		**B**		**C**			
	Nos.	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**
underglaze B&W	**23**	**95.8**	**253**	**94.8**	**442**	**92.5**	**139**	**88.5**	**97**	**90.7**	**954**	**92.4**
ubw	21	87.5	231	86.5	388	81.2	126	80.3	86	80.4	852	82.5
brown gl.ubw	2	8.3	22	8.2	54	11.3	13	8.3	11	10.3	102	9.9
combined enameled wares	**1**	**4.2**	**14**	**5.2**	**36**	**7.5**	**18**	**11.5**	**10**	**9.3**	**79**	**7.6**
brown gl. enam. on brown gl.	-	-	1	0.4	-	-	-	-	-	-	1	0.1
brown gl. only	-	-	1	0.4	-	-	-	-	1	0.9	2	0.2
ubw & enamels	-	-	2	0.7	5	1.0	3	1.9	5	4.7	15	1.5
Chinese Imari	-	-	8	3.0	17	3.6	5	3.2	-	-	30	2.9
Chinese Imari + other colors	-	-	-	-	2	0.4	1	0.6	-	-	3	0.3
enameled unidentified	-	-	-	-	-	-	-	-	2	1.9	2	0.2
enamels only	1	4.2	1	0.4	7	1.5	4	2.5	-	-	13	1.3
famille verte	-	-	1	0.4	5	1.0	5	3.2	2	1.9	13	1.3
Total	**24**	**100.0**	**267**	**100.0**	**478**	**100.0**	**157**	**100.0**	**107**	**100.0**	**1033**	**100.0**

Table 4.4a. Van der Stel Moat (M90): Asian ceramic pattern distribution by Level (sherds/MNV)

Prov. Type	Pattern	Level (Nos. sherds/MNV)					Total	
		SF	A1	A2	B	C	Nos.	MNV
CPO	Aster	1/0	12/2	7/1	-	-	20	3
	Botanical[1]	-	-	12/1	-	-	12	1
	Copy JPO Kraak- style	4/3	22/3	119/13	17/2	2/1	164	22
	Dancing Boy[1]	-	-	5/1	-	-	5	1
	Grassy Rock[1]	2/1	11/3	86/13	-	-	99	17
	Master of Rocks	-	-	14/1	-	-	14	1
	Rotterdam Riots	-	1/0	80/7	-	-	81	7
	Spotted Dog[1]	-	24/0	96/5	34/0	21/3	175	8
JPO	Flowers in Pot on Terrace	1/1	-	1/0	-	-	2	1
	Kraak-style[2]	2/2	38/6	11/5	17/5	8/4	76	22
	VOC monogram	-	-	2/0	-	-	2	0
CPW	Dog of Fo	1/1	-	2/1	-	-	3	2
	Flowers & Rock	4/2	47/13	243/37	7/3	-	301	55
	Incised[1]	-	-	-	-	1/1	1	1
	Leaf	-	19/2	49/16	-	-	68	18
	Leaf-style	-	3/1	-	-	-	3	1
	Leaf-unidentified	-	12/2	-	-	-	12	2
	Scrolling Chrysanthemum	2/1	24/8	18/5		-	44	14
	Scrolling Peony	3/1	17/7	152/33	1/1	4/3	177	45
	Scrolling Chrys./Peony	-	64/0	-	7/1	-	71	1
	Swatow-style	-	-	-	-	1/1	1	1
IPF	Overlapping circles	-	-	8/1	-	-	8	1
OST	Molded/appliqué	-	10/2	2/0	-	2/2	14	2

[1] Terms devised for use in this analysis are not internationally recognized.
[2] Includes 2 sherds with 'Flowers in a Pot on a Terrace' pattern.

Description (including Patterns and Marks)

Most of the wares found here are ordinary. The few quality ones with distinctive patterns and styles are listed alphabetically in Table 4.4a. The names given to patterns marked with an asterisk are not internationally recognized but were devised for use in this analysis only

Patterns

Chinese Export wares (CPO) underglaze-blue patterns include the 'Aster'(A2-CPO-031) (Wanjiao 2006: 139 no. 64) (Figure 4.1), 'Botanical' (A2-CPO-028) (Gabbert 1977: 82 no. 171) (Figure 4.2), Chinese copies of Japanese kraak-style plates or dishes (SF-CPO-001; A1-CPO-012.1, 012.2; A2-CPO-001.1, 001.3) (Sotheby's Amsterdam 2007: 128, 129 nos. 464-470) (Figure 4.3), 'Dancing Boy' (A2-CPO-217) (Kassel 1990: 317 nos. 85a, b), 'Grassy Rock' (A1-CPO-006) (Krahl et al. 1986: 1043 nos. 2276-77) (Figure 4.4), the Late Transitional 'Master of the Rocks' style (A2-CPO-212) (Kilburn 1981: 95 no. 102, 150 nos. 102,103) (Figure 4.5), 'Rotterdam Riots' (1690) (A2-CPO-148, 213) (Howard and Ayers 1978: 60 no. 15) (Figure 4.6), and 'Spotted Dog' (A2- CPO-374) (Christiaan Jörg 2005, pers. comm.) (Figure 4.7).

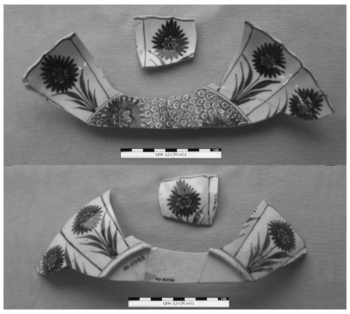


Figure 4.1. Chinese Export Porcelain from the Castle Moat (M90) excavation, showing 'Aster' pattern (A2-CPO-031). Scale in cm. (Photo J. Klose and C. Schrire)

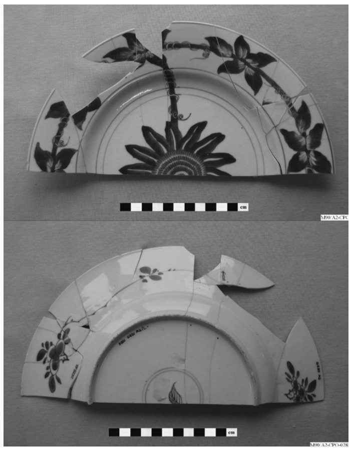


Figure 4.2. Chinese Export Porcelain from the Castle Moat (M90) excavation, showing 'Botanical' pattern (A2-CPO-028). Scale in cm. (Photo J. Klose and C. Schrire)

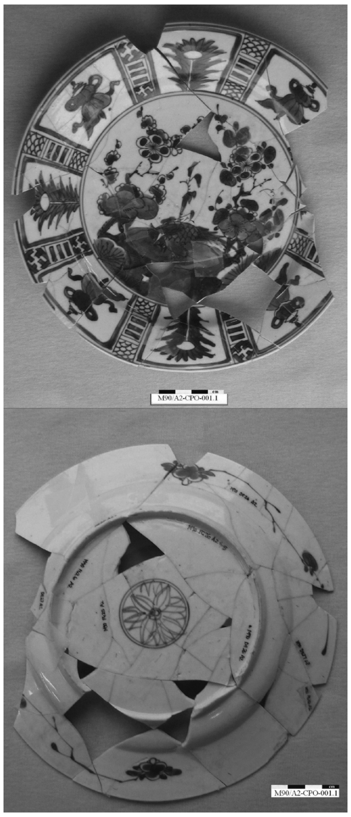


Figure 4.3. Chinese Export Porcelain from the Castle Moat (M90) excavation, showing 'Chinese copy of Japanese kraak-style pattern' (A2-CPO-001.1). Scale in cm. (Photo J. Klose and C. Schrire)

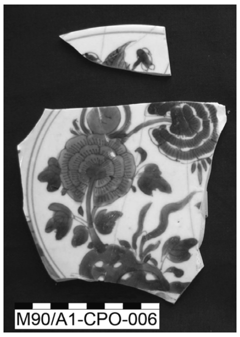


Figure 4.4. Chinese Export Porcelain from the Castle Moat (M90) excavation, showing 'Grassy Rock' pattern (A1-CPO-006). Scale in cm.
(Photo J. Klose and C. Schrire)

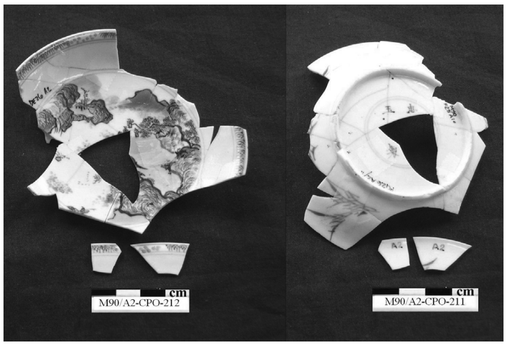


Figure 4.5. *(left)* Chinese Export Porcelain from the Castle Moat (M90) excavation, showing Late Transitional 'Master of the Rocks' style pattern (A2-CPO-212). Scale in cm. (Photo J. Klose and C. Schrire)

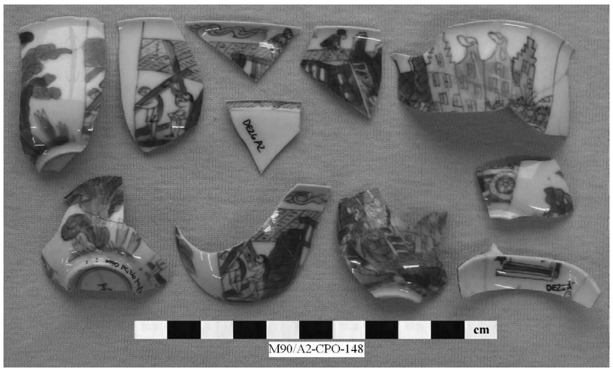


Figure 4.6. Chinese Export Porcelain from the Castle Moat (M90) excavation, showing 'Rotterdam Riots' (1690) pattern (A2-CPO-148). Scale in cm. (Photo J. Klose and C. Schrire)

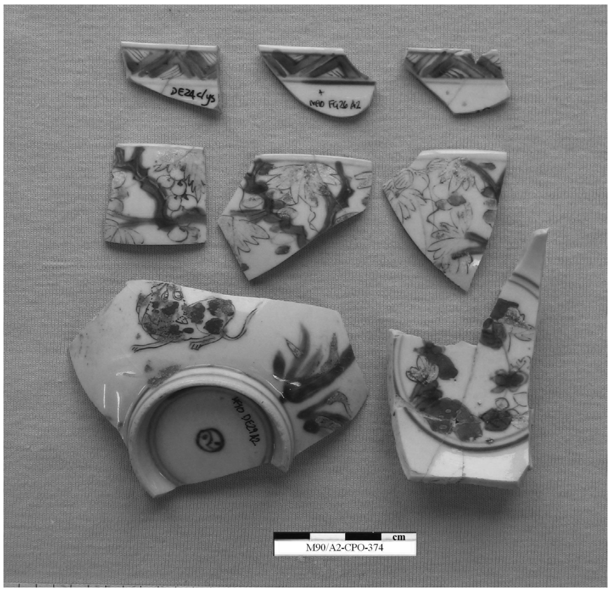


Figure 4.7. Chinese Export Porcelain from the Castle Moat (M90) excavation, showing 'Spotted Dog' pattern (A2-CPO-374). Scale in cm. (Photo J. Klose and C. Schrire)

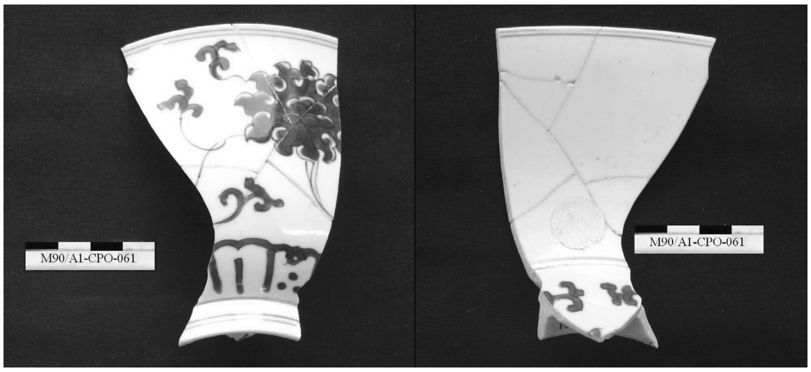


Figure 4.8: Chinese Export Porcelain from the Castle Moat (M90) excavation, showing Kangxi bowl with scrolling lotus (A1-CPO-61). Scale in cm. (Photo J. Klose and C. Schrire)

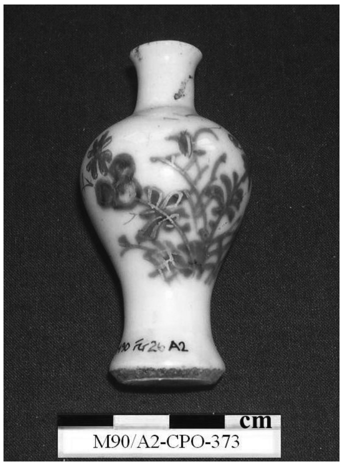


Figure 4.9. Chinese Export Porcelain from the Castle Moat (M90) excavation, showing Chinese Imari decoration with red and gilt embellishment on a miniature vase (A2-CPO-373). Scale in cm. (Photo J. Klose and C. Schrire)

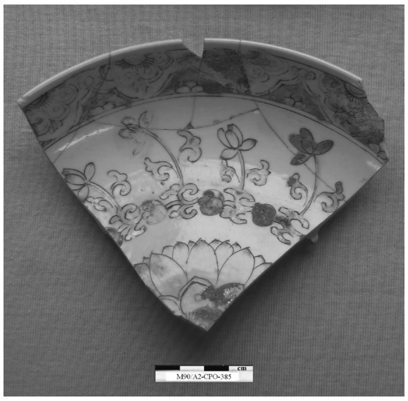


Figure 4.10. Chinese Export Porcelain from the Castle Moat (M90) excavation, showing *famille verte* saucer-dish (A2-CPO-385). Scale in cm. (Photo J. Klose and C. Schrire)

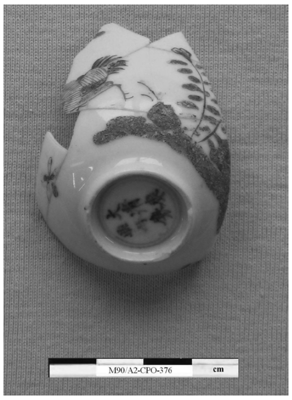


Figure 4.11. Chinese Export Porcelain from the Castle Moat (M90) excavation, showing a very high quality ‘egg-shell’ porcelain enameled cup with a cockerel and flowering plants (A2-CPO-376). Scale in cm. (Photo J. Klose and C. Schrire)

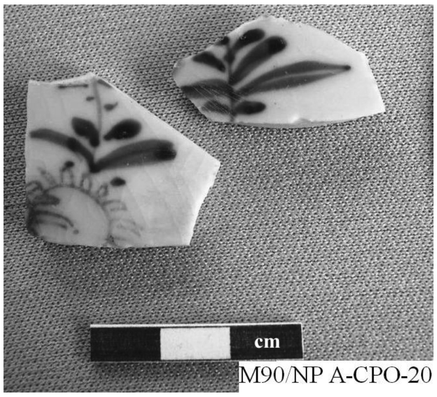
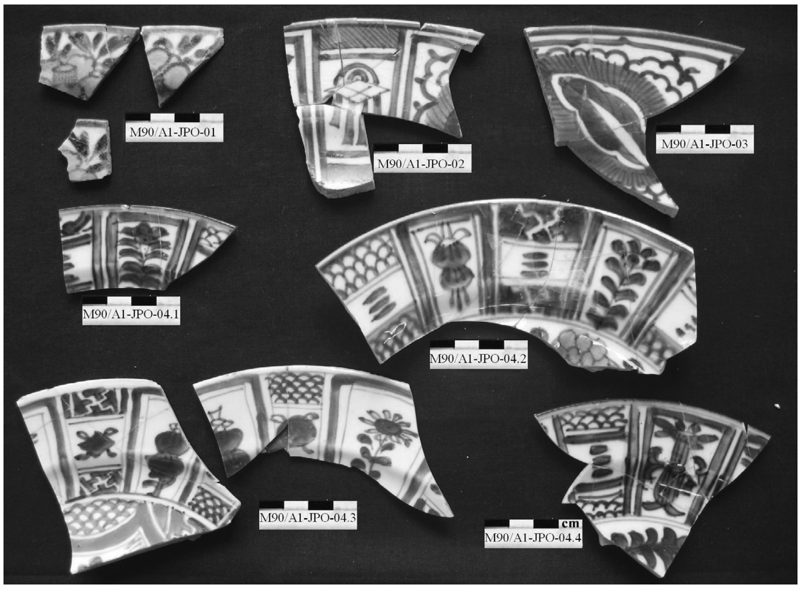
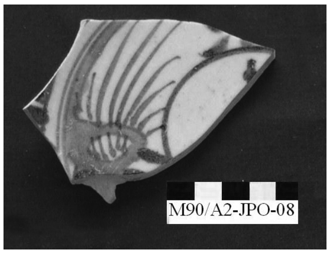


Figure 4.12. Chinese Export Porcelain from the Castle Moat (M90) excavation, showing a presumable Kangxi fragment decorated in underglaze blue and red (NP-A-CPO-20). Scale in cm. (Photo J. Klose and C. Schrire)

Of interest within this group are some ceramics that were probably made for private trade. They include the underglaze blue vessels with a ‘Botanical’ pattern (A2-CPO-028) (Figure 4.2), and a Kangxi bowl with a scrolling lotus (A1-CPO-061) (Krahl et al. 1986: 1056 no. 2328) (Figure 4.8). To these may be added ceramics with Chinese Imari decorations that include red and gilt embellishment on a variety of wares including a miniature vase (A2-CPO-373) (Figure 4.9). Also noteworthy, is a *famille verte* saucer-dish (A2-CPO-385) (Figure 4.10), a very high quality ‘egg-shell’ porcelain enameled cup with a cockerel and flowering plants (A2-CPO-376) (Figure 4.11), and a brown glaze and *famille verte* tea bowl (A1-CPO-187) (Groninger colln. 1999; Christiaan Jörg, 2005, pers. comm.). The category also features an unprovenanced fragment (NP-A-CPO-20), decorated in underglaze blue and red (derived from copper oxide) and presumably Kangxi (Figure 4.12).





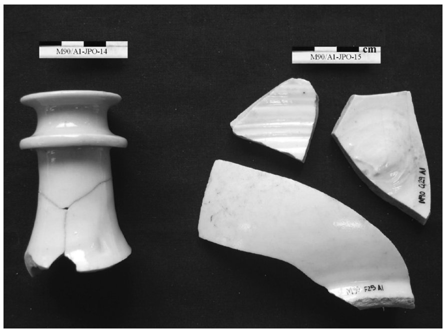


Figure 4.13. *(above left)* Japanese Export Porcelain from the Castle Moat (M90) excavation, showing kraak-style fragments (A1-JPO-02-04). Scale in cm. (Photo J. Klose and C. Schrire)

Figure 4.14. (*top right)* Japanese Export Porcelain from the Castle Moat (M90) excavation, showing kraak-style ware fragment with a hint of the VOC monogram (A2-JPO-08). Scale in cm. (Photo J. Klose and C. Schrire)

Figure 4.15. (*bottom right)* Japanese Export Porcelain from the Castle Moat (M90) excavation, showing plain apothecary flasks (A1-JPO-14, 15). Scale in cm. (Photo J. Klose and C. Schrire)

Turning to the Japanese export wares, underglaze blue patterns feature kraak-style wares and include (SF-JPO-01) (Adhyatman et al. 1979: 19 no. 11), A1-JPO-02-04, and B-JPO-01, 016 (Rinaldi 1989: 228 Pl. 287) (Figure 4.13) and one with 'Flowers in a Pot on a Terrace' (SF-JPO-02) (Lunsingh Scheurleer 1971: 62 no. 32). There is only one with the VOC monogram (A2-JPO-08) (Kyushu 2000: 38 no. 48) (Figure 4.14), although other broken rims might also have come from monogrammed plates. Plain Japanese wares include apothecary flasks that occur throughout the deposit and are illustrated in the catalog (A1-JPO-14, 15) (Klose 2000: 70-71) (Figure 4.15).

Coarse Porcelain Ware (CPW) is decorated mainly with underglaze blue. Examples include 'Stylized Dog of Fo' (SF-CPW-03) (Klose 1997, App. J; Krahl et al. 1986: 967 no. 2004), 'Flowers & Rock' (A2-CPW-010) (Jörg and Flecker 2001: 79, Fig. 72) (Figure 4.16), Incised pattern (C-CPW-06) (Klose 2007: 110, Fig. 153), 'Leaf' pattern (A1-CPW-010.1, 010.2; A2-CPW-017) (Baart et al. 1986: 95 Pl. 9; Sassoon 1981: 103) (Figures 4.17, 4.18), as well as 'Leaf-style' (A1-CPW-013) and 'Leaf unidentified' (A1-CPW-014, 015). In addition there are 'Scrolling Chysanthemum' (A1-CPW-001) (Ho 1988: 155, FO3b) (Figure 4.19) and 'Scrolling Peony' patterns (A2-CPW-001-003) (Sheaf 1988: 148, Pl. 194) (Figure 4.20). A single 'Swatow-style' sherd (C-CPW-06) completes this list (Klose 2007: 110, Fig. 153).

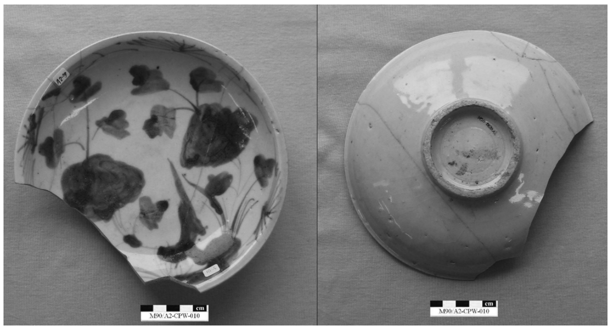


Figure 4.16. Coarse Porcelain Ware from the Castle Moat (M90) excavation, showing 'Flowers & Rock' pattern (A2-CPW-010). Scale in cm. (Photo J. Klose and C. Schrire)

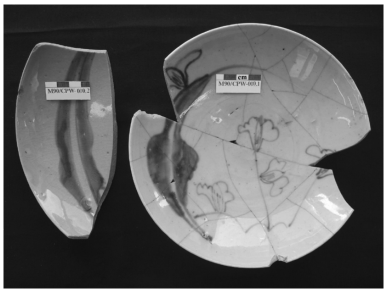


Figure 4.17: Coarse Porcelain Ware from the Castle Moat (M90) excavation, showing 'Leaf' pattern (A1-CPW-010.1, .2). Scale in cm. (Photo J. Klose and C. Schrire)

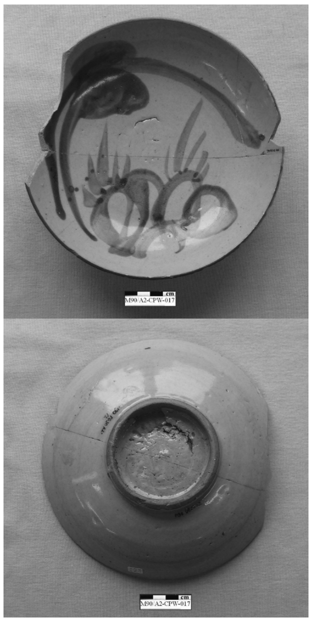


Figure 4.18. Coarse Porcelain Ware from the Castle Moat (M90) excavation, showing 'Leaf' pattern (A2-CPW- 017). Scale in cm. (Photo J. Klose and C. Schrire)

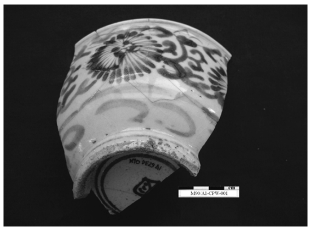


Figure 4.19. Coarse Porcelain Ware from the Castle Moat (M90) excavation, showing 'Scrolling Chrysanthemum' pattern (A1-CPW-001). Scale in cm. (Photo J. Klose and C. Schrire)

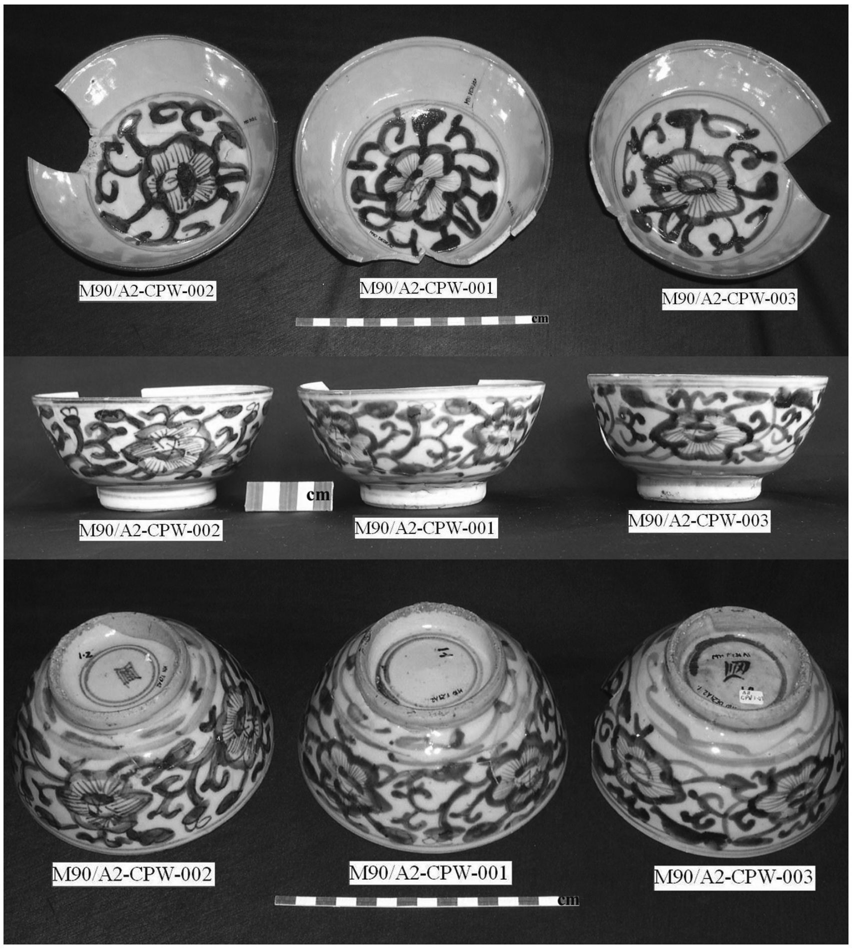

M90/A2-CPW-002
M90/A2-CPW-001
M90/A2-CPW-003
cm
cm
M90/A2-CPW-002
M90/A2-CPW-001
M90/A2-CPW-003
M90/A2-CPW-002
M90/A2-CPW-001
M90/A2-CPW-003
cm

Figure 4.20. Coarse Porcelain Ware from the Castle Moat (M90) excavation, showing 'Scrolling Peony' pattern (A2-CPW-001-003). Scale in cm. (Photo J. Klose and C. Schrire)

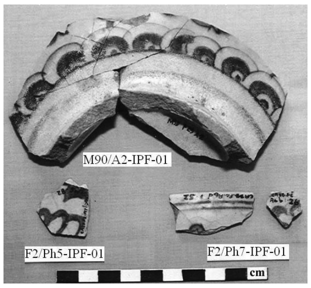

M90/A2-IPF-01
F2/Ph5-IPF-01
F2/Ph7-IPF-01
cm

Figure 4.21. Islamic Persian Fritware from the Castle Moat (M90) excavation, showing blue and white pattern of overlapping circles at base (A2-IPF-01), compared with similar ware from the Old Granary, F2 (Ph 7-IPF-01, Ph5-IPF-01). Scale in cm. (Photo J. Klose and C. Schrire)

Islamic Persian Fritware/Stoneware (IPF) has one vessel with a blue and white pattern of overlapping circles around the base (A2-IPF-01) (Volker 1971: 115) (Figure 4.21).

Asian Stoneware (OST) includes molded, appliqué, and incised decoration on a variety of vessels especially teapots. There is a 'Dog of Fo' finial (C-OST-01) (Valfré 2000: 1215 no. 197) and a molded hexagonal Yixing teapot (A1-OST-009) (Klose 2000: 69). In addition, there is an unprovenanced water dropper in the shape of a toad (NP-OST-2) that matches a number of similar finds from the *Ca Mau* (ca. 1725) (Sotheby's Amsterdam 2007: 162-163) (Figure 4.22).

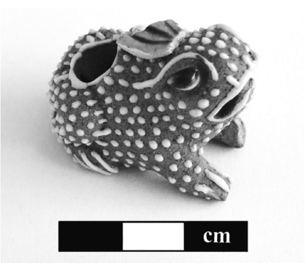


Figure 4.22. Asian Stoneware from the Castle Moat (M90) excavation, showing water dropper in the shape of a toad (NP-OST-2). Scale in cm. (Photo J. Klose)

Marks

Table 4.5a lists the marks noted in the main catalog. They include single and double rings, as well as more distinctive elements such as square seals, the sacred fungus (*linghzi*), *yin-yang*, the artemesia leaf, conch shell, and a partial six character mark (A2-CPO-032) (Davison 1994: 20-22). These listings link the Moat series with similar marks found in the other Castle site, F2, as well as at Oudepost I.

Table 4.5a. Van der Stel Moat (M90): Asian ceramic marks

Catalog #	Form	Decoration	Mark	Date (century or calendar)	Site Reference
CHINESE EXPORT PORCELAIN (CPO)					
M90/SF-CPO-025	bowl	brown gl. ubw	Two fish in double ring	late 17th-early 18th	
M90/ A1-CPO-006	plate	ubw	Square seal in double ring	1713	
M90/A1-CPO-009.1	plate	ubw	Conch shell in double ring	2nd ½ 17t-18th	OPI-CPO-027
M90/A1-CPO-010.1	plate	ubw	Endless knot in double ring	2nd ½ 17th-18th	
M90/A1-CPO-012.1	plate	ubw	Part double ring	1713, ca. 1725	
M90/A1-CPO-030	plate	ubw	Unidentified mark in double ring	late 17th-early 18th	
M90/A1-CPO-043	dish	ubw	Part unidentified mark in double ring	1690s	
M90/A1-CPO-061	bowl	ubw	Part double ring	late 17th-early 18th	
M90/A1-CPO-066	bowl	ubw	Part double ring	late 17th-early 18th	
M90/A1-CPO-081	cup	ubw	Square seal		
M90/A1-CPO-101	bowl	ubw	Sacred fungus (*lingzhi*) in double ring	late 17th-early 18th	M90/A2-CPO-107, B-CPO-075; F2/Ph3-CPO-07
M90/A1-CPO-102	cup	ubw	Square seal		
M90/A1-CPO-103	cup	ubw	Double ring		
M90/A1-CPO-154 CPO-148	saucer	ubw	Part double ring	1690-1700	M90/A2-
M90/A1-CPO-221	bowl	ubw & enamels	Yin-yang	1710	M90/A2-CPO-374, B-CPO-028. C-CPO-036
M90/A2-CPO-001.1	plate	ubw	Stylised flower head in double ring	1713, ca. 1725	
M90/A2-CPO-001.2	plate	ubw	Unidentified mark in double ring	ca. 1725; late 17th-early 18th	
M90/A2-CPO-001.3	plate	ubw	Part double ring	ca. 1725; late 17th-early 18th	
M90/A2-CPO-001.4	plate	ubw	Part double ring	ca. 1725; late 17th-early 18th	
M90/A2-CPO-003	plate	ubw	Square seal in double ring	1st ¼ 18th	

(continued on following page)

Table 4.5a. *(continued)*

Catalog #	Form	Decoration	Mark	Date (century or calendar)	Site Reference
M90/A2-CPO-004	plate	ubw	Square seal in double ring	1st ¼ 18th	
M90/A2-CPO-008.1	plate	ubw	Unidentified mark in double ring	1713	
M90/A2-CPO-011.1	plate	ubw	Square seal in double ring	1710-1730	
M90/A2-CPO-011.2	plate	ubw	Square Seal in double ring	1710-1730	
M90/A2-CPO-011.5	plate	ubw	Part double ring	1710-1730	
M90/A2-CPO-012.1	plate	ubw	Square seal in double ring	1710-1730	
M90/A2-CPO-019	plate	ubw	Unidentified mark in double ring	1700-1720	
M90/A2-CPO-022	plate/dish	ubw	Double line ?double ring	1700-1720	
M90/A2-CPO-023	plate/dish	ubw	Part unidentified symbol in double ring		
M90/A2-CPO-028	plate/dish	ubw	Artemesia leaf in double ring	Early 18th	OPI-CPO-124
M90/A2-CPO-032	dish	ubw	Part six characters mark in double ring: *'ju shun Mei Yu Tang zhi'* ('made in the Hall of Fine Jade where happiness gathers')	late 17th-early 18th	CPO-212, 376 *?M90/A2-*
M90/A2-CPO-035	dish	ubw	Part double ring	late 17th-early 18th	
M90/A2-CPO-049	dish	ubw	Double ring		
M90/A2-CPO-059	uniden.	ubw	Possible ding in double ring	late 17th- early 18th	
M90/A2-CPO-063.1	bowl	ubw	Unidentified mark in double ring	late 17th-early 18th	
M90/A2-CPO-107	cup	ubw	Sacred fungus (*lingzhi*)	late 17th-early 18th	M90/A1-CPO-101; B-CPO-075; F2/Ph3-CPO-07
M90/A2-CPO-148	cup	ubw	Part character in double ring	1690-1700	M90/A1-CPO-154
M90/A2-CPO-170	saucer	ubw	Symbol in double ring	late 17th- early 18th	
M90/A2-CPO-171	saucer	ubw	Symbol in double ring	late 17th-early 18th	
M90/A2-CPO-173	saucer	ubw	Double ring		
M90/A2-CPO-211	saucer	ubw	Mark in double ring	late 17th-early 18th	
M90/A2-CPO-212	saucer	ubw	Part six character mark in double ring	late 17th	?M90/A2-CPO-032, 376
M90/A2-CPO-222	saucer	ubw	Mark in double ring	late 17th-early 18th	
M90/A2-CPO-225	saucer	ubw	Double rings &/or marks		
M90/A2-CPO-241	dish	ubw	Square seal in double ring	1690s	
M90/A2-CPO-242	dish	ubw	Casually painted mark in double ring	1690s	
M90/A2-CPO-243	dish	ubw	Unidentified symbol		

(continued on following page)

Table 4.5a. *(continued)*

Catalog #	Form	Decoration	Mark	Date (century or calendar)	Site Reference
M90/A2-CPO-245	dish	ubw	Double ring		
M90/A2-CPO-278	cup	brown gl. ubw	Double ring	1697	
M90/A2-CPO-279	cup	brown gl. ubw	Double ring	1697	
M90/A2-CPO-292	cup	brown gl. ubw	Small seal in double ring		
M90/A2-CPO-299	saucer	brown gl. only	Square seal in double ring	late 17th-early 18th	
M90/A2-CPO-323	bowl	brown gl. ubw	Lozenge tied with ribbons ` in double ring	1710	
M90/A2-CPO-361	cup/saucer	Chinese Imari	Double ring	1st ½ 18th	
M90/A2-CPO-363	saucer	Chinese Imari	Square seal in double ring		
M90/A2-CPO-374	bowl	ubw & enamels	Yin-yang	1710	M90/A1-CPO-221, B-CPO-028, C-CPO-036
M90/A2-CPO-376	cup	*famille verte*	Six character mark	1710-1720's	?M90/A2-CPO-032, 212
M90/A2-CPO-377	cup	*famille verte*	Flowering plant		
M90/A2-CPO-378	saucer	*famille verte*	Part double ring		
M90/A2-CPO-381.1	fragments	enamels only	Double blue line		
M90/A2-CPO-385	dish	*famille verte*	Part symbol in double ring		
M90/B-CPO-015	pl/dish	ubw	Part double ring		
M90/B-CPO-027	saucer	ubw	Square seal in double ring	1690s; 1713	
M90/B-CPO-028	saucer	ubw	Stylised yin-yang in double ring	early 18th	M90/A1-CPO-221, A2-CPO-374, C-CPO-036
M90/B-CPO-048	saucer	ubw	Four character mark; double rings		
M90/B-CPO-049	saucer	ubw	Part double ring		
M90/B-CPO-052	cup	ubw	Square seal	ca. 1725; late 17th-early 18th	
M90/B-CPO-073	cup	ubw	Small square seal		
M90/B-CPO-074	cup	ubw	Unidentified symbol in double ring		
M90/B-CPO-075	cup	ubw	Sacred fungus (*linghzi*) in double ring	late 17th-early 18th	M90/A1-CPO-101, A2-CPO-107; F2/Ph3-CPO-07
M90/B-CPO-078	bowl	ubw	Flower head in double ring	1st ½ 18th	
M90/B-CPO-090	bowl	ubw	Double ring		

(continued on following page)

Table 4.5a. *(continued)*

Catalog #	Form	Decoration	Mark	Date (century or calendar)	Site Reference
M90/C-CPO-001	plate	ubw	Symbol in double ring	late 17th-early 18th	
M90/C-CPO-015	plate/dish	ubw	Double ring		
M90/C-CPO-017	bowl	ubw	Unidentified symbol in double ring	1st ½ 18th	
M90/C-CPO-036	cup	ubw	Yin-yang in double ring		M90/A1-CPO-221; A2-CPO-374; B-CPO-028
M90/C-CPO-060	cup	brown gl. ubw	Part double ring	18th	
M90/C-CPO-071	bowl	*famille verte*	Part double ring		
M90/C-CPO-072	bowl	*famille verte*	Part double ring		
JAPANESE EXPORT PORCELAIN (JPO)					
M90/A2-JPO-26	**cup**	**Imari**	**ubw and red enamel flower**	**late 17th -1st ¼ 18th**	
COARSE PORCELAIN WARE (CPW)					
M90/A1-CPW-001	bowl	ubw	Square seal in double ring	late 17th -18th	
M90/A1-CPW-005 18th	bowl	ubw	Parts double rings	ca. 1725, 1752: 1st ½	
M90/A1-CPW-015	bowl	ubw	Part double ring		
M90/A2-CPW-001	bowl	ubw	Double ring	1725, 1752	
M90/A2-CPW-002	bowl	ubw	Square seal in double ring	18th - ca. 1725, 1752	
M90/A2-CPW-003	bowl	ubw	Square seal in double ring	18th - ca. 1725, 1752	
M90/A2-CPW-004	bowl	ubw	Double ring	18th - ca. 1725, 1752	
M90/A2-CPW-005	bowl	ubw	Unidentified potter's mark in double ring	18th	
M90/C-CPW-02	bowl	ubw	Symbol in double ring	18th	
ASIAN STONE WARE (OST)					
M90/A1-OST-015	teapot	Yixing	Eight character incised mark	1713	

Reference

Cross-referencing can be made with a variety of shipwrecks and collections dated from the 17th-18th centuries.

Site Reference (including cross mends)

Numerous cross-references provide cultural links between different levels of the Moat. In contrast to numerous unlisted cross mends of objects *within* levels, there are a very few cross mends *between* them. In fact, Table 4.6 lists only 55 sherds (0.9% of the total count), from nine MNV (0.8% of the total MNV) that cross mend between levels. Five cross mend over adjacent levels and four over alternate ones, suggesting that there was very little post-depositional disturbance here.

Date

The Asian wares from M90 post-date 1680 and cluster around the late 17th and early 18th century.

Table 4.6. Van der Stel Moat (M90): Asian ceramic cross mends

Catalog #	Nos (sherds)	MNV
SF-CPO-016	2	1
A2-CPO-112	1	0
SF-CPO-026	1	0
A1-CPO-042	9	1
A1-CPO-063	1	1
C-CPO-018.2	1	0
A2-CPO-061	6	1
C-CPO-018.1	5	0
A2-CPO-315	2	1
B-CPO-127.2	1	0
A1-JPO-05	2	0
B-JPO-01	6	1
A1-JPO-16	3	1
A2-JPO-40	1	0
A1-JPO-10	4	0
A2-JPO-028	2	1
B-JPO-10	2	0
A2-JPO-032	1	0
C-JPO-08	3	1
C-JPO-10	2	0
Total	55	9

Referenced Range and Period

Our earliest sherds come from the Late Transitional- early Kangxi periods and include several sherds of Qing Domestic Late Transitional ware (early Kangxi), with the 'Master of the Rocks'-style landscape (Figure 4.5) (Kilburn 1981: 95 no. 102, 150 nos. 102, 103). In addition, a mid-16th-late 17th century version of the Coarse Porcelain Swatow-style ware made between 1557 and about 1662 (C-CPW-06) appears in the lowest level of the Moat (Klose 2007: 110, Fig. 153). The tightest dating comes from the commemorative cups and saucers showing the Rotterdam Riots of 1690 (see Figure 4.6). A commemorative medallion was struck in the Netherlands that year but it probably took some time to convey the design to the Chinese production center and then to carry the products back home to end up in the contexts in which we find them today. Consequently we suggest that these vessels therefore date on or after 1690 to 1695 and sometimes up to 1700 (Howard and Ayers 1978: 60 no. 15; Christiaan Jörg 2005, pers. comm.).

The approximate date ranges shown in Table 4.5a and Table 4.7, as well as in the Moat catalog, suggest that the collection dates to a period post-1680s and clusters around the late 17th-early 18th century. The majority of dated fragments are consistent with a pattern found in other Cape sites (including the other two discussed later in this chapter), characterized in part by occasional *famille verte* and Chinese Imari (Tables 3a, b) and a total absence of *famille rose,* that dates before the 1730s, or the second quarter of the 18th century when *famille rose* appears at Cape sites like Elsenburg (Hart and Halkett 1993: 25; Klose 1997: 126-129; Klose 2007: 94, Figs. 68, 69; also see Chapter 2).

Shipwreck Dates

Shipwreck date ranges are shown in Table 4.7. Comparable cargoes include those of the *San Diego* (1600), *Witte Leeuw* (1613), *São Gonçalo* (1630), *Mombasa Portuguese Wreck* (?1680-1681), *Nossa Senhora del Milagros* (1686), *Vung Tau* (1690's), *No 1 Wanjiao Shipwreck* (1690's), *Oosterland* (1697), *Bennebroek* (1713), and *Ca Mau* (ca 1725), *Geldermalsen* (1752), and *Diana* (1817). These ranges are consistent with the site references. Some elements have longer ranges than other, as, for example, the 'Scrolling Chysanthemum' bowls that continue through the 17th and into the 19th century. Japanese apothecary wares occur throughout the Castle Moat deposit, and are dated from 1670 to 1740, with reference to the *Oosterland* (1697) as well as documentary evidence (Kyushu 2000: 135 no. 303; Volker 1959: 73).

Table 4.7. Cross references between Asian ceramics and shipwreck cargoes in VOC sites at the Cape

Shipwreck	**Site**					
	Van der Stel Moat (M90)		**Old Granary (F2)**		**Oudepost I (OPI)**	
	Catalog #	**Nos./MNV**	**Catalog #**	**Nos./MNV**	**Catalog #**	**Nos./MNV**
San Diego (1600)	A1-AEW-01; A2-OST-007, AEW-01, 02; B-OST-08	16/6			AEW-01, 02, OST-08	56/4
Witte Leeuw (1613	A1-OST-001; A2-OST-007, 009; B-OST-08	13/4	Ph7-OST-03, 04; Ph1-OST-01	3/3		
São Gonçalo (1630)	A1-AEW-01; A2-AEW-01, 02	10/4	Ph7-AEW-02,03	5/2	AEW-01.02	28/2
Mombasa Portuguese Wreck (?1680-81)	A1-CPW-010, AEW-01; A2-CPW-020-025, AEW- 01, 02.	48/14			CPW-46, 48-58, AEW-01, 02	82/13
Nossa Senhora dos Milagros (1686)	A1-CPO-060	5/1	Ph7-CPO-20	1/1		
Vung Tau (1690s)	SF-CPW-05, 06; A1-CPO-091, CPW-007- 010; A2-CPO-119, CPW-010-016, 020-025, OST-007; B-CPO-027, 067, CPW-10-12, OST-08; C-CPO-035, 045	243/37			CPW-48-70	91/20
No. 1 Wanjiao Shipwreck (1690s)	SF-CPO-026; A1-CPO-020, 042, 043, 131; A2-CPO-005, 021, 031, 064, 065, 241, 242; B-CPO-001, 005, 010, 012; C-CPO-013	51/15			CPO-030-034, 046, 047, 073, 075	18/7
Oosterland (1697)	SF-JPO-05; A1-JPO-14-17, CPW-10, OST-001, 003, 009, 012, AEW-01; A2-CPO-147, 277-280, 290, JPO-40-43, CPW-020-025, OST-006 AEW 01,02; B-CPO-057, JPO-13-15, OST-05; C-CPO-057, JPO-11, OST-02, 04	160/43	Ph5-JPO-02; Ph4-CPO-05; Ph1-CPO-05	6/4	CPO-015, 053-059, JPO-18, CPW-48-58, AEW-01,02	100/20
Bennebroek (1713)	SF-CPO-001, 002, 005; A1-CPO-005, 012, 028, 049, 066, 091, 114, 194, 203-207, JPO-05, OST-012, 015; A2-CPO-001, 005, 006, 008, 011-013, 030, 062, 063.2, 119, 155, 175, 318, 321, 323-325, JPO-04, 13, 27; B-CPO-003, 005, 010, 027, 067, 086, 120-122, 124, JPO-01, 04; C-CPO-002, 017, 035, 045, JPO-01, OST-01, 02, 04	467/92			CPO-001-004, 009, 031-034, 045, 076, 099, 101-106, 119, 131, 132, JPO-01, 05, 06, 20, OST-04	85/25
Ca Mau (ca. 1725)	SF-CPO-001, 022, CPW-01; A1-CPO-008, 012, 089, 116, 131, 137, 147, 186, CPW-004-006; A2-CPO-001, 002, 006, 128, CPW-001-006; B-CPO-003, 052, 060, 072, CPW-01; C-CPO-002, 022, 049, CPW-01-03, (NP-OST-2 excluded from level count)	477/95	Ph7-CPO-20	1/1	CPO-045, CPW-21-25	25/6
Geldermalsen (1752)	SF-CPW-01; A1-CPW-004-006; A2-CPW-001-006, OST-009; B-CPW-01; C-CPW-01-03	244/46	Ph7-OST-03,04; Ph1-OST-01	3/3	CPW-21-25, 37, 38	31/7
Diana (1817)	A2-CPW-007-009	18/5			CPW-37, 38, 46	11/4

Castle: Old Granary (F2)

The Old Granary (F2) material was excavated in the stratified floor of a vaulted structure in the Kat wall of the Castle (see Chapter 2). The original work there suggested that the lower Phases 1-4 accumulated during the late 17th century and that the upper Phases 5-7 were deposited later, in the 18th century. Hall attributed the deposits to slaves, on the basis of 'pits' that he thought were similar to root cellars and other such hidey-holes in Virginian sites (1992: 389-90). The worn condition and small size of the Asian sherds are consistent with being broken and exposed elsewhere before being incorporated in the F2 fill, and our reinterpretation of the site is that it consists of stratified fills that were probably dumped there to address drainage issues (see Chapters 2 and 3).

Numbers/MNV

There are 158 sherds with an MNV of 76 (Tables 4.8a, b). The ratio of sherds to MNV is 2:1, which far lower than that found in the Moat (5.5:1) or at Oudepost (8:1), suggesting that intact vessels were never present here but, rather, that the material came from dumps and that it had already been sorted when it was finally deposited here as fill (see Chapters 2 and 3).).

Form/Subform

Forms include bottles, bowls, cups, dishes, jars (including martevans), plates, pouring vessels (teapots), and saucers. Tea wares and hollow wares like bowls and dishes predominate here, as they did in the Moat (Tables 4.9a, b).

Table 4.8a. Old Granary (F2): Asian ceramic provenance type distribution by Phase (sherds)

Prov. Type	Phase										Total	
	7		5		4		3		1			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
CPO	49	62.8	7	53.8	11	78.6	23	62.2	13	81.25	103	65.1
JPO	15	19.2	3	23.1	-	-	3	8.1	1	6.25	22	13.9
CPW	1	1.3	-	-	1	7.1	5	13.5	1	6.25	8	5.1
IPF	2	2.6	1	7.7	-	-	-	-	-	-	3	1.9
OST	6	7.7	1	7.7	2	14.3	4	10.8	1	6.25	14	8.9
AEW	5	6.4	1	7.7	-	-	2	5.4	-	-	8	5.1
Total	78	100.0	13	100.0	14	100.0	37	100.0	16	100.0	158	100.0

Table 4.8b. Old Granary (F2): Asian ceramic provenance type distribution by Phase (MNV)

Prov. Type	Phase										Total	
	7		5		4		3		1			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
CPO	19	54.3	3	37.5	5	71.4	8	53.3	8	72.7	43	56.6
JPO	7	20.0	2	25.0	-	-	2	13.3	1	9.1	12	15.8
CPW	1	2.8	-	-	1	14.3	2	13.3	1	9.1	5	6.6
IPF	1	2.8	1	12.5	-	-	-	-	-	-	2	2.6
OST	5	14.3	1	12.5	1	14.3	2	13.3	1	9.1	10	13.1
AEW	2	5.7	1	12.5	-	-	1	6.7	-	-	4	5.3
Total	35	99.9	8	100.0	7	100.0	15	99.9	11	100.0	76	100.0

Table 4.9a. Old Granary (F2): Asian ceramic vessel form distribution by Phase (sherds), excluding fragments, and undiagnostic and unidentified sherds

Form	Phase										Total	
	7		5		4		3		1			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
bottle/flask	7	10.6	-	-	-	-	-	-	-	-	7	5.6
bowl	4	6.1	-	-	-	-	4	15.4	3	27.3	11	8.9
bowl covered	-	-	-	-	-	-	-	-	1	9.1	1	0.8
cup	4	6.1	4	36.3	4	40.0	-	-	3	27.3	15	12.1
dish	31	47.0	-	-	2	20.0	9	34.6	3	27.3	45	36.3
dish/bowl	3	4.5	1	9.1	2	20.0	-	-	-	-	6	4.8
dish/plate	6	9.1	2	18.2	-	-	2	7.7	-	-	10	8.1
jar/pot	5	7.5	1	9.1	-	-	-		1	9.1	7	5.6
plate	4	6.1	1	9.1	-	-	-	-	-	-	5	4.0
pouring vessel	1	1.5	1	9.1	2	20.0	-	-	-	-	4	3.2
saucer	1	1.5	1	9.1	-	-	11	42.3	-	-	13	10.5
Total	66	100.0	11	100.0	10	100.0	26	100.0	11	100.1	124	99.9

Table 4.9b. Old Granary (F2): Asian ceramic vessel form distribution by Phase (MNV), excluding fragments, and undiagnostic and unidentified sherds

Form	Phase										Total	
	7		5		4		3		1			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
bottle/flask	3	8.8	-	-	-	-	-	-	-	-	3	4.5
bowl	3	8.8	-	-	-	-	2	20.0	2	22.2	7	10.6
bowl covered	-	-	-	-	-	-	-	-	1	11.1	1	1.5
cup	4	11.8	2	28.5	2	33.3	-	-	3	33.3	11	16.7
dish	10	29.4	-	-	2	33.3	5	50.0	2	22.2	19	28.8
dish/bowl	2	5.9	1	14.3	1	16.7	-	-	-	-	4	6.1
dish/plate	3	8.8	1	14.3	-	-	1	10.0	-	-	5	7.6
jar/pot	4	11.8	1	14.3	-	-	-	-	1	11.1	6	9.1
plate	3	8.8	1	14.3	-	-	-	-	-	-	4	6.1
pouring vessel	1	2.9	1	14.3	1	16.7	-	-	-	-	3	4.5
saucer	1	2.9	-	-	-	-	2	20.0	-	-	3	4.5
Total	34	99.9	7	100.0	6	100.00	10	100.0	9	99.9	66	100.0

Ware, Provenance Type, Decoration

Ware

All four types of ware are found here.

Provenance Type

Asian porcelains predominate here as in the Moat and Oudepost, but with slightly less Chinese Export Ware and more Japanese Export Ware than is found in the Moat (M90) and markedly less Coarse Porcelain than in both the Moat and Oudepost I (Table 4.8a, b). This directly contradicts Hall's statement that coarse porcelain was "completely absent" here, and in this sense, contradicts a key assumption that lies at the heart of what was thought to denote slave resistance there (1992: 390). Islamic Persian Fritware (IPF), Asian Stoneware (OST), and Asian Earthenware (AEW) form higher proportions of wares here (15.9-21%) than they do in the Moat (2-3%) and Oudepost I (5.2%). The OST category includes both martevans and Yixing teapots.

Decoration

Underglaze blue predominates in the porcelains, occurring alone on 88% of the sherds and 77% of the MNV and in association with brown glaze on 7.8% and 14% of the total sherds and the MNV respectively (Tables 4.10a, b). The combined enameled wares constitute 3.9% and 9.3% by sherd count and MNV respectively. A noteworthy fragment is classified as 'enamels on biscuit' (Ph7-CPO-20). It comes from the uppermost 18th century level, has colored glazes painted onto unglazed ('biscuit') porcelain before firing, and matches examples on two shipwrecks dated between 1686 and 1725 (Klose 2007: 44). Finally, there are two sherds of *famille verte* from the lowest level (Ph1-CPO-07) that together constitute around 2% of the sherds and 4.7% of the MNV in the total collection.

Table 4.10a. Old Granary (F2): Asian porcelain (CPO, JPO, CPW) decoration distribution by Phase (sherds)

Decoration	**Phase**										**Total**	
	7		**5**		**4**		**3**		**1**			
	Nos.	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**
underglaze B&W	**49**	**98.0**	**7**	**100.0**	**10**	**100.0%**	**23**	**100.0**	**9**	**75.0**	**98**	**96.1**
ubw	48	96.0	6	85.7	6	60.0	23	100.0	7	58.3	90	88.2
brown gl.ubw	1	2.0	1	14.3	4	40.0	-	-	2	16.7	8	7.8
combined enameled wares	**1**	**2.0**	**-**	**-**	**-**	**-**	**-**	**-**	**3**	**25.0**	**4**	**3.9**
enamels on biscuit	1	2.0	-	-	-	-	-	-	-	-	1	1.0
enamels only	-	-	-	-	-	-	-	-	1	8.3	1	1.0
famille verte	-	-	-	-	-	-	-	-	2	16.7	2	1.9
Total	**50**	**100.0**	**7**	**100.0**	**10**	**100.0**	**23**	**100.0**	**12**	**100.0**	**102**	**100.0**

Table 4.10b. Old Granary (F2): Asian porcelain (CPO, JPO, CPW) decoration distribution by Phase (MNV)

Decoration	**Phase**										**Total**	
	7		**5**		**4**		**3**		**1**			
	Nos.	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**
underglaze B&W	**18**	**94.7**	**3**	**99.9**	**5**	**100.0**	**8**	**100.0**	**5**	**62.5**	**39**	**90.7**
ubw	17	89.4	2	66.7	3	60.0	8	100.0	3	37.5	33	76.7
brown gl.ubw	1	5.3	1	33.3	2	40.0	-	-	2	25.0	6	14.0
combined enameled wares	**1**	**5.3**	**-**	**-**	**-**	**-**	**-**	**-**	**3**	**37.5**	**4**	**9.3**
enamels on biscuit	1	5.3	-	-	-	-	-	-	-	-	1	2.3
enamels only	-	-	-	-	-	-	-	-	1	12.5	1	2.3
famille verte	-	-	-	-	-	-	-	-	2	25.0	2	4.7
Total	**19**	**100.0**	**3**	**100.0**	**5**	**100.0**	**8**	**100.0**	**8**	**100.0**	**43**	**100.0**

Table 4.4b: Old Granary (F2) Asian ceramic pattern distribution by Phase (sherds/MNV)

Prov. Type	Pattern	Phase (Nos. sherds/MNV)					Total	
		7	5	4	3	1	Nos.	MNV
CPO	Dancing Boy[1]	1/1	-	-	-	-	1	1
	Dog of Fo	-	-	-	2/1	-	2	1
JPO	Kraak-style	5/3	2/1	-	1/0	-	8	4
CPW	Dragon in Clouds	1/1	-	-	-	-	1	1
IPF	Circles	2/1	-	1/1	-	-	3	1
OST	Molded/appliqué	-	-	-	2/1	-	2	1

[1] Terms devised for use in this analysis are not internationally recognized.

Description (including Patterns and Marks)

This collection is much smaller than that found in the other two sites with far less variety than is found in the Moat.

Patterns

Among the Chinese Export porcelain is a single sherd with the 'Dancing Boy' pattern (Ph7-CPO-16) (Kassel 1990: 317 no. 85a, b) (Figure 4.23) and a bowl with a 'Dog of Fo' design (Ph3-CPO-01) (Yeo and Martin 1978: 304). There are eight sherds of Japanese (JPO) kraak-style wares, (Ph7-JPO-01-03, Ph5-JPO-01, Ph3-JPO-02) (Kaneda 2003: 67 nos. 28.29; Ohashi 1990: 13-26, 53-61; Woodward 1974: 54, 65) (Figure 4.24). Turning to the Coarse Porcelain ware, there is a 'Dragon in the Clouds' sherd (Ph7-CPW-01) (Krahl et al. 1986: 1116 no. 2611). There are three Islamic Persian Fritware sherds with blue and white decoration (Ph7-IPF-01; Ph5-IPF-01) (Allen 1991: 62 Pl. 39; Volker 1971: 115) (see Figure 4.21). Finally, there is an Asian Stoneware sherd (Ph7-OST-04) with a dark olive green glaze with incised rings around the body (Van der Pijl-Ketel 1982: 234 no. 5.8; Sheaf 1988: 151 Pl. 199) (Table 4.4b).

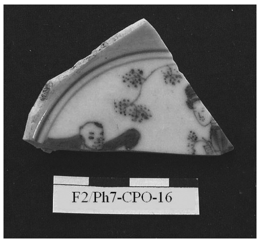


Figure 4.23. Chinese Export Porcelain from the Old Granary (F2) excavation, showing 'Dancing Boy' pattern (Ph7-CPO-16). Scale in cm. (Photo J. Klose and C. Schrire)

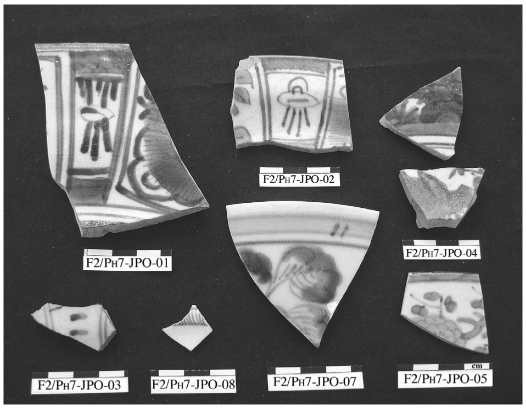


Figure 4.24. Japanese Export Porcelain from the Old Granary (F2) excavation, showing kraak-style wares (Ph7-JPO-01-03). Scale in cm. (Photo J. Klose and C. Schrire)

Table 4.5b. Old Granary (F2): Asian ceramic marks

Catalog #	Form	Decoration	Mark	Date (century)	Site Reference
CHINESE EXPORT PORCELAIN (CPO)					
F2/Ph7-CPO-16	dish	ubw	Part symbol in double ring	late 17th - early 18th	
F2/Ph7-CPO-17	bowl	ubw	Part double ring	late 17th - early 18th	
F2/Ph5-CPO-02	saucer	ubw	Part double ring	-	
F2/Ph4-CPO-03	dish/bowl	ubw	Part double ring	late 17th - early 18th	
F2/Ph3-CPO-07	saucer	ubw	Sacred fungus (*lingzhi*) in double ring	late 17th - early 18th	M90/A1-CPO-101, A2-CPO-107, B-CPO-075
F2/Ph3-CPO-09	bowl	ubw	Part double ring		

Marks

A few marks are found here, one of which, the sacred fungus (*linghzi*) (Ph3-CPO-07), is also found in the Moat (Table 4.5b).

Reference

Cross references link this collection to shipwrecks and collections dated to the 17th-18th centuries.

Site Reference (including cross mends)

A number of comparisons are noted with objects within the deposits as well as with some from the Moat and Oudepost I, but no cross mends are found.

Date

Referenced Range and Period

The range of dates is similar to that found in the Moat, post-dating 1680 and clustering around the late 17th-early 18th century (Table 4.5b)The most significant characteristic of the collection as a whole is the presence of *famille verte* in the lowest level (Ph1-CPO-07) (Tables 10a, b), which, coupled with the absence of *famille rose* here as in the Moat and Oudepost I, dates this collection to the pre-1730s at the Cape (Hart and Halkett 1993: 25; Klose 1997: 126-129; Klose 2007: 94 Figs. 68, 69).

Shipwreck Dates

This range estimate is confirmed by comparisons with dated shipwreck cargoes (Table 4.7). They include the *Witte Leeuw* (1613), *São Gonçalo* (1630), *Nossa Senhora dos Milagros* (1686), *Oosterland* (1697), *Ca Mau* (ca 1725), and *Geldermalsen* (1752). Although there are fewer links to referenced shipwrecks here, the dates involved cover a similar range to that found at our other sites. One piece of Asian Stoneware (Ph7-OST-03) is referenced to both the *Witte Leeuw* (1613) and the *Geldermalsen* (1752), showing its lengthy duration of manufacture (Van der Pijl-Ketel 1982: 234 no. 5.8; Sheaf 1988: 151 Pl. 199). The same explanation cannot be made for the Islamic Persian Fritware, whose presence in the later levels (Phases 5 and 7) is at odds with their 17th century estimated date and raises the possibility of post-depositional disturbance (see Chapter 2).

Oudepost I (OPI)

Oudepost I was an outpost of the VOC situated about 120 km north of the Castle on the shore of Langebaan lagoon at Saldanha Bay. It was founded in 1666 and occupied between 1669 and 1732 by a small garrison of four to ten men. Its chief purpose was to man the frontier of VOC expansion, to provision passing ships, and to trade with the indigenous pastoral-foragers. The Castle supplied the outpost on a regular basis, and archaeological evidence shows that the garrison also hunted and traded for themselves. There is no mention of Asian wares in the official provisioning lists for this station, making it very likely that they were dropped off there by passing ships that were presumably home bound after their trading voyages in Asian and Southeast Asian seas. The wares might have been given as gifts or exchanges, some may have carried food, and others may simply have been deposited in the intertidal zone when the ships careened their hulls and cleaned out their bilges (Schrire 1995; see Chapter 2).

The collection from Oudepost I was excavated mainly from 1985 to 1987. The intertidal dump DP was excavated in a series of small locales between 1985 and 1995 (Schrire et al. 1993: 26-30; Schrire 1995; see Chapter 2). The units of analysis used here are based on those derived from an extensive study of the distribution of dated clay tobacco pipes (Schrire et al. 1990; see Chapter 2). This, coupled with a later analysis of cross mends, revealed considerable secondary deposition and disturbance by various agents including the original occupants, later treasure hunters, and dune moles (Schrire et al. 1993). The net effect was to scatter pieces of the same vessel widely and to generate a large number of non-provenance (NP) sherds.

Numbers/MNV

The MNV of 235 cannot be attributed to level or unit due to the highly dispersed nature of sherds from single vessels (Table 4.11). Instead we present the analysis of sherds. There are 1808 sherds of which 1359 (75%) can be attributed to a horizontal unit such as the fort, lodge, or intertidal zone, and 979 (54%) to a vertical level (Tables 4.12a,b). The rest are unprovenanced (NP). The overall ratio of sherds to MNV is 8:1, which is higher than that found in both Castle sites, suggesting that vessels were used and broken on-site here as compared to having been broken in part before they were dumped in the Moat or Old Granary.

Table 4.11. Oudepost I (OPI): Asian ceramic provenance type distribution (MNV)

Prov. Type	Total	
	Nos.	%
CPO	127	54.0
JPO	16	6.8
CPW	80	34.0
OST	10	4.3
AEW	2	0.9
Total	235	100.0

Table 4.12a. Oudepost I (OPI): Asian ceramic provenance type distribution by Unit (sherds), excluding fragments, and undiagnostic and unidentified sherds

Prov. Type	Unit								Total	
	Fort		Lodge		DP		NP			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
CPO	365	65.9	178	41.9	179	47.1	256	57.0	978	54.1
JPO	10	1.8	6	1.4	22	5.8	19	4.2	57	3.2
CPW	144	26.0	218	51.3	143	37.6	145	32.3	650	35.9
OST	17	3.1	20	4.7	36	9.5	22	4.9	95	5.3
AEW	18	3.2	3	0.7			7	1.6	28	1.5
Total	554	100.0	425	100.0	380	100.0	449	100.0	1808	100.0

Table 4.12b. Oudepost I (OPI): Asian ceramic provenance type distribution by Level (sherds), excluding fragments, and undiagnostic and unidentified sherds

Prov. Type	Level						Total	
	X		I		II			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%
CPO	116	64.1	311	55.7	116	48.3	543	55.5
JPO	6	3.3	6	1.1	4	1.7	16	1.6
CPW	51	28.2	218	39.1	93	38.7	362	37.0
OST	7	3.9	15	2.7	15	6.3	37	3.8
AEW	1	0.5	8	1.4	12	5.0	21	2.1
Total	181	100.0	558	100.0	240	100.0	979	100.0

Form/Subform

There is a wide variety of forms and subforms including bottles, bowls, cups, dishes, jars, plates, saucers, and even two pumpkin-shaped teapots (CPO-131, 132) (Tables 4.13a, b; Figure 4.25). Although there are variations in the frequencies of forms on land and in the intertidal dump (DP), they are not consistent enough to specify which might have emanated from ships' garbage as opposed to site use. Bowls and dishes predominate in the sherd counts, constituting over 50%, with tea wares (cups, saucers) making up about 20% and plates around 21% of the total collection (Table 4.13a). There are almost twice as many bowls and dishes in the lodge collection (78.6%) as in the fort (37.9%), and far more plates and saucers in the fort (42%) than the lodge (8.5%) (Table 4.13a). Although all these forms were used for food service, it is unlikely that food was served on plates in this rough outpost, and probably what we are seeing here is that the garrison used bowls to eat their food in the lodge. Finally, where changes over time are concerned, plates and saucers increase while dishes and bowls decrease (Table 4.13b).

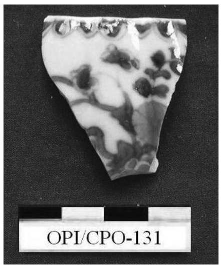


Figure 4.25. Chinese Export Porcelain from the Oudepost I (OPI) excavation, showing pumpkin-shaped teapot (CPO-131). Scale in cm. (Photo J. Klose and C. Schrire)

Table 4.13a. Oudepost I (OPI): Asian ceramic vessel form distribution by Unit (sherds), excluding fragments, and undiagnostic and unidentified sherds

Form	Unit								Total	
	Fort		Lodge		DP		NP			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
bottle/flask	18	4.2	3	1.0	-	-	7	1.8	28	1.9
bowl	130	30.0	163	53.4	70	21.7	112	28.3	475	32.6
cover	-	-	2	0.7	-	-	-	-	2	0.1
cover/lid	1	0.2	-	-	-	-	1	0.3	2	0.1
cup	46	10.6	9	3.0	36	11.2	32	8.1	123	8.4
dish	32	7.4	62	20.3	67	20.8	71	17.9	232	15.9
dish/bowl	2	0.5	15	4.9	-	-	3	0.8	20	1.4
dish/plate	1	0.2	4	1.3	1	0.3	-	-	6	0.4
jar/pot	7	1.6	8	2.6	13	4.0	14	3.5	42	2.9
jar/pot-open	7	1.6	12	3.9	12	3.7	5	1.3	36	2.5
plate	113	26.1	14	4.6	79	24.5	96	24.2	302	20.7
plate/dish	3	0.7	-	-	6	1.9	7	1.8	16	1.1
pot	-	-	-	-	1	0.3	-	-	1	0.1
pouring vessel (incl. teapot)	4	0.9	1	0.3	1	0.3	-	-	6	0.4
saucer	69	15.9	12	3.9	36	11.2	48	12.1	165	11.3
Total	433	99.9	305	100.0	322	99.9	396	100.1	1456	99.8

Table 4.13b. Oudepost I (OPI): Asian ceramic vessel form distribution by Level (sherds), excluding fragments, and undiagnostic and unidentified sherds

Form	Level						Total	
	X		I		II			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%
bottle/flask	1	0.7	8	1.9	12	6.8	21	2.8
bowl	51	34.5	164	39.7	78	44.1	293	39.7
cover	-	-	2	0.5	-	-	2	0.3
cover/lid	1	0.7	-	-	-	-	1	0.1
cup	14	9.5	30	7.3	11	6.2	55	7.5
dish	15	10.1	40	9.7	39	22.0	94	12.7
dish/bowl	-	-	16	3.9	1	0.6	17	2.3
dish/plate	-	-	4	1.0	1	0.6	5	0.7
jar/pot	3	2.0	9	2.2	3	1.7	15	2.0
jar/pot-open	4	2.7	4	1.0	11	6.2	19	2.6
plate	22	14.9	96	23.2	9	5.1	127	17.2
plate/dish	1	0.7	2	0.5	-	-	3	0.4
pot	-	-	-	-	-	-	-	-
pouring vessel (incl. teapot)	1	0.7	1	0.2	3	1.7	5	0.7
saucer	35	23.6	37	9.0	9	5.1	81	11.0
Total	148	100.1	413	100.1	177	100.1	738	100.0

Ware, Provenance Type, Decoration

Ware

There are five wares present, including Chinese Export Porcelain (CPO), Japanese Export Porcelain (JPO), Coarse Porcelain Ware (CPW), Asian Stoneware (OST), and Asian Earthenware (AEW). Islamic Persian Fritware (IPF) is not present here.

Provenance Type

Asian porcelains predominate, forming over 90% of the total sherds and MNV (Tables 4.12a, b). Chinese Export Porcelain (CPO) constitutes 54-56%, which is a smaller proportion than was found in the Moat. The total Japanese sherd count at Oudepost (1.6-3.2%) is lowest of all three sites discussed here; it is closer to the Moat (3.5-6.2%) than to the Old Granary (F2) (14-16%). Most striking of all is the high Coarse Porcelain (CPW) sherd count at Oudepost (36%), which far outstrips the both the Moat (c.16%) and F2 (c.6%). Furthermore, there is more Chinese Export Porcelain in the fort than the lodge, where Coarse bowls may have served as food containers (Table 4.12a). Where changes over time are concerned, Chinese Export porcelain increases over time whereas coarse porcelain decreases (Table 4.12b). Asian Stonewares (OST) and Earthenwares (AEW) form small parts of the collections. Notable here among the OST series are Yixing teapots as well as a number of varied sherds from Asian storage jars or martevans (OST-6-10) (Figure 4.26). These were used on long sea voyages and are frequently listed in shipwrecks. Their presence at Oudepost confirms the occurrence of passing homebound ships that might have provisioned the outpost with such ceramics.

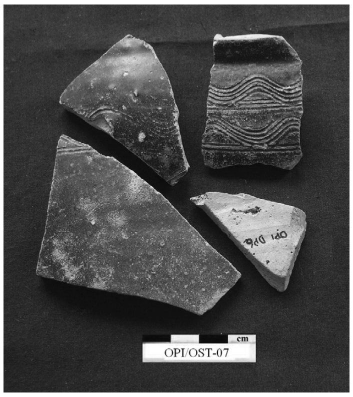


Figure 4.26. Asian Stoneware from the Oudepost I (OPI) excavation, showing sherds from storage jar or martevan (OST-07). Scale in cm. (Photo J. Klose and C. Schrire)

Decoration

Underglaze blue is the most common decoration here by far and is found on almost 99% of the Asian porcelain sherds (Tables 14a, b). Within this category, 17% of the sherds also have brown glaze. The combined enameled wares consist of ten *famille verte* sherds from a single, small, handled cup (CPO-150) (Figure 4.27).

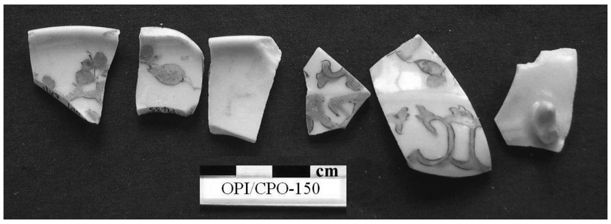


Figure 4.27. Chinese Export Porcelain from the Oudepost I (OPI) excavation, showing fragments from a single *famille verte* cup (CPO-150). Scale in cm. (Photo J. Klose and C. Schrire)

Table 4.14a. Oudepost I (OPI): Asian porcelain (CPO, JPO, CPW) decoration distribution by Unit (sherds)

Decoration	Unit								Total	
	Fort		Lodge		DP		NP			
	Nos	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
underglaze B&W	**359**	**99.2**	**178**	**100.0**	**175**	**97.8**	**227**	**98.7**	**939**	**98.9**
ubw	308	85.1	149	83.7	136	76.0	185	80.4	778	82.0
brown gl.ubw	51	14.1	29	16.3	39	21.8	42	18.3	161	16.9
combined enameled wares	**3**	**0.8**	-	-	**4**	**2.2**	**3**	**1.3**	**10**	**1.1**
famille verte	3	0.8	-	-	4	2.2	3	1.3	10	1.1
Total	**362**	**100.0**	**178**	**100.0**	**179**	**100.0**	**230**	**100.0**	**949**	**100.0**

Table 4.14b. Oudepost I (OPI): Asian porcelain (CPO, JPO, CPW) decoration distribution by Level (sherds)

Decoration	Level						Total	
	X		I		II			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%
underglaze B&W	**116**	**100.0**	**308**	**99.0**	**116**	**100.0**	**540**	**99.4**
ubw	85	73.3	285	91.6	90	77.6	460	84.7
brown gl.ubw	31	26.7	23	7.4	26	22.4	80	14.7
combined enameled wares	-	-	**3**	**1.0**	-	-	**3**	**0.6**
famille verte	-	-	3	1.0	-	-	3	0.6
Total	**116**	**100.0**	**311**	**100.0**	**116**	**100.0**	**543**	**100.0**

Description (including Patterns and Marks)

Patterns

Patterns here are more restricted than in the Moat collection but more varied than in the Old Granary (F2) (Table 4.4c). Chinese Export Porcelain includes the 'Grassy Rock' pattern (CPO-119) (Krahl et al. 1986: 1043 nos. 2276-77; 1077 no. 2432) and an 'Incised' pattern (CPO-115) (Krahl et al. 1986: 1072 no. 2405). Japanese Export Ware includes the kraak-style 'Flower in a Pot on a Terrace' (JPO- 04) (Kyushu 2000: 229 Fig. 6 no. 67), kraak-style (JPO-01, 11) (Ohashi 1990: 57 no. 58), and a few VOC monogrammed sherds (JPO-08, 12) (Daendels 1981: 41 Fig. 25) (Figure 4.28).

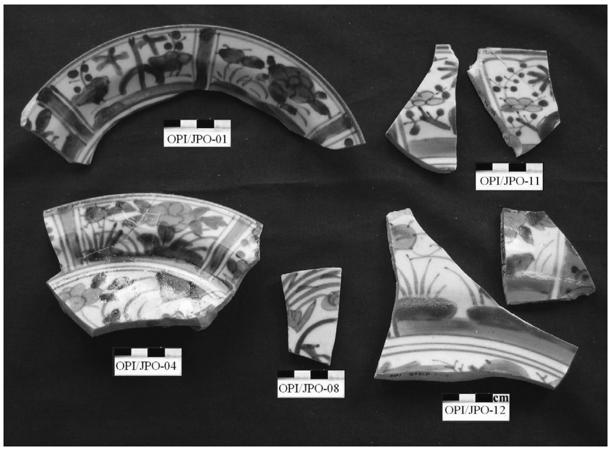


Figure 4.28. Japanese Export Porcelain from the Oudepost I (OPI) excavation, showing kraak-style pattern (JPO-01, 11), 'Flowers in a Pot on the Terrace' pattern (JPO-04), and fragments with the VOC monogram (JPO-08, ?12). Scale in cm. (Photo J. Klose and C. Schrire)

Table 4.4c. Oudepost I (OPI): Asian ceramic pattern distribution by Unit and Level (sherds and MNV)

Prov. Type	Pattern	Unit (Nos. sherds)				Level (Nos. sherds)			Total	
		Fort	Lodge	DP	NP	X	I	II	Nos.	MNV
CPO	Grassy Rock[1]	3	-	1	3	-	3	-	7	1
	Incised	-	1	1	-	-	1	-	2	1
JPO	Flowers in Pot on Terrace	4	5	5	3	2	4	3	17	4
	Kraak-style[2]	6	6	10	13	4	5	3	35	11
	VOC monogram	-	1	-	2	-	1	-	3	1
CPW	Dog of Fo	4	4	7	3	3	3	2	18	3
	Dragon in Clouds	-	15	-	1	-	14	1	16	1
	Flowers & Rock	3	28	1	4	-	10	20	35	10
	Leaf	2	13	23	13	2	5	8	51	9
	Scrolling Chrysanthemun	77	25	36	37	23	68	11	175	17
	Scrolling Peony	4	4	6	9	3	4	1	23	5
	Stamped	-	12	-	1	-	5	7	13	1
	Swatow-style	4	2	35	30	1	4	1	71	8
OST	Molded/appliqué	3	-	-	-	-	1	2	3	0

[1] Terms devised for use in this analysis are not internationally recognized.

[2] Includes 5 sherds with 'Flowers in Pot on a Terrace" pattern, and one with VOC monogram.

The Coarse Porcelain Ware shows more variety than at the other sites, possible due to its relative abundance here. Patterns include the 'Dog of Fo' (CPW-27) (Krahl et al. 1986: 967 no. 2004), 'Dragon in Clouds' (CPW-45) (Krahl et al. 1986:1116 no. 2611), 'Flowers & Rock' (CPW-60) (Harrisson 1995: Figs. 29, 31a), 'Leaf' (CPW-49-52) (Sassoon 1981: 103 Fig. 4) (Figure 4.29), 'Scrolling Chrysanthemum' (CPW-01-04) (Ho 1988: 155, FO 3d), 'Scrolling Peony' (CPW-23, 24, 25) (Sotheby's Amsterdam 2007: 139 cat no. 496) (Figure 4.30), and 'Stamped' (CPW-28) (Klose 1997, Appendix J: J22). In addition, there are numerous 'Swatow-style' sherds such as were made between the 15th and 17th centuries (CPW-71, 75, 78), some of which are incised (CPW-76) (Adhyatman 1999: 39-48; Harrisson 1979: 12, 241 Fig. 123; Harrisson 1995: 1-5) (Figure 4.31).

Among the Asian Stoneware (OST) collection are a small number of Yixing teapots and lids with molded and appliqué patterns, including one with a 'Dog of Fo' finial (OST-04) (Valfré 2000: 1215 nos. 197, 220).

Marks

Marks are found on both the Chinese Export Porcelain and the Coarse Porcelain Ware (Table 4.5c). The conch shell (CPO-027) and the artemesia leaf (CPO-124) found here also occur in the Moat.

Reference

Cross-referencing can be made here, as in the previous two sites, with a variety of shipwrecks and collections dated to the late-17th-18th centuries.

Site Reference (including cross mends)

An analysis of cross mends shows a high degree of post-depositional disturbance by numerous agents (Schrire et al. 1993).

Date

Referenced Range and Period

The age of the Asian wares from Oudepost clusters around the late 17th to early 18th century. Starting with the referenced date range, our oldest material might be the 71 Coarse Porcelain Swatow-style sherds emanating from eight vessels (CPW-71, 75-78). One (CPW-71) is particularly typical of a genre that was made between 1567 and about 1662 and might therefore be amongst the earliest wares present at the Cape settlement (Adhyatman 1999: 39-48; Harrisson 1979: 12; Kerr 2009: 14). Perhaps our tightest date comes from the Chinese Export series (CPO-093), a late Transitional ware, flared rim bowl showing the 'Eight Horses of Mu Wang' that has been confidently dated to 1660-70 (Christiaan Jörg 2005, pers. comm.) (Figure 4.32). Among the Japanese wares, a single apothecary flask (JPO-18) is dated between 1690 and 1740 (Welz 1997: 29 no. 129). Finally, in keeping with the two Castle sites previously discussed, the absence of *famille rose* emphasizes that the collection accumulated before the 1730s (Hart and Halkett 1993: 25; Klose 1997: 127-129; Klose 2007: 94 Figs. 68, 69).

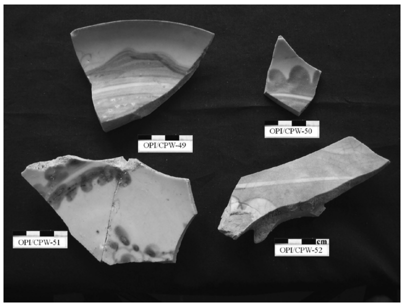


Figure 4.29. Coarse Porcelain Ware from the Oudepost I (OPI) excavation, showing 'Leaf' pattern (CPW-49-52). Scale in cm. (Photo J. Klose and C. Schrire)

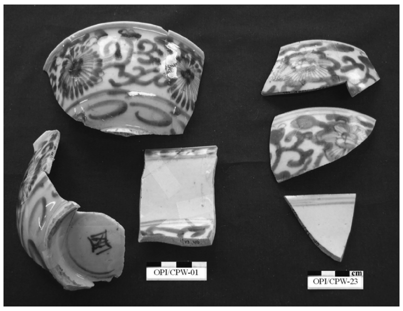


Figure 4.30. Coarse Porcelain Ware from the Oudepost I (OPI) excavation, showing 'Scrolling Chrysanthemum' (CPW-01) and 'Scrolling Peony' (CPW-23) patterns. Scale in cm. (Photo J. Klose and C. Schrire)

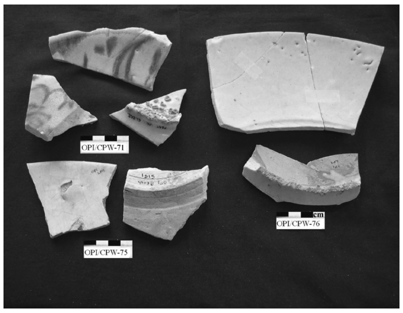


Figure 4.31. Coarse Porcelain Ware from the Oudepost I (OPI) excavation, showing 'Swatow-style' sherds (CPW-71, 75) some of which are incised (CPW-76). Scale in cm. (Photo J. Klose and C. Schrire)

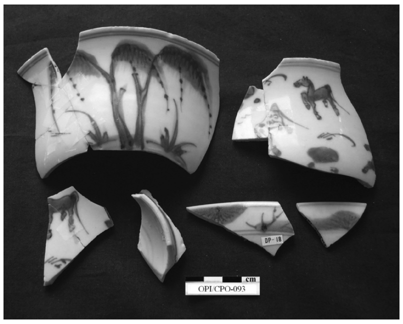


Figure 4.32. Chinese Export Porcelain from the Oudepost I (OPI) excavation, showing a late Transitional bowl decorated with the 'Eight Horses of Mu Wang' (CPO-093). Scale in cm. (Photo J. Klose and C. Schrire)

Table 4.5c. Oudepost I (OPI): Asian ceramic marks

Catalog #	Form	Decoration	Mark	Date (century or calendar)	Site Reference
CHINESE EXPORT PORCELAIN					
OPI/CPO-001	cup	ubw	Unidentified symbol or character	1713	
OPI/CPO-006	cup	ubw	Part double ring		
OPI/CPO-022	cup	ubw	Square seal in double ring	1st 18th	
OPI/CPO-024	cup	ubw	Unidentified symbol in double ring		
OPI/CPO-025	cup	ubw	Unidentified character		
OPI/CPO-027	cup	ubw	Conch shell in double ring	1st ¼ 18th	M90/A1-CPO-009.1
OPI/CPO-046	saucer	ubw	Unidentified symbol in double ring	1690s	
OPI/CPO-047	saucer	ubw	double ring	1690s	
OPI/CPO-051	saucer	ubw	Double ring	late 17th-early 18th	
OPI/CPO-053	cup	brown gl. ubw	Double ring	1697	
OPI/CPO-065	cup	brown gl. ubw	Square seal in double ring		
OPI/CPO-067	cup	brown gl. ubw	Double ring		
OPI/CPO-068	cup	brown gl. ubw	Part double ring		
OPI/CPO-072	saucer	brown gl. ubw	Part unidentified symbol in double ring		
OPI/CPO-076	saucer	brown gl. ubw	Unidentified symbol in double ring	1713	
OPI/CPO-080	saucer	brown gl. ubw	Double ring		
OPI/CPO-083	saucer	brown gl. ubw	Double ring, unidentified symbol	1720-40	
OPI/CPO-084	saucer	brown gl. ubw	Part single/double ring	late 17th–early 18th	
OPI/CPO-093	bowl	ubw	Double ring	3rd ¼ 17th	
OPI/CPO-108	bowl	ubw	Part double ring	1713	
OPI/CPO-109	bowl	ubw	Part double ring	1713	
OPI/CPO-124	dish	ubw	Artemesia leaf in double ring	1st ¼ 18th	M90/A2-CPO-028
OPI/CPO-128	plate	ubw	Double ring	early 18th	
OPI/CPO-129	plate	ubw	Square seal in double ring	early 18th	
COARSE PORCELAIN WARE (CPW)					
OPI/CPW-01	bowl	ubw	Black double ring	late 17th–18th	
OPI/CPW-02	bowl	ubw	Single ring	late 17th–18th	
OPI/CPW-03	bowl	ubw	Ring	late 17th–18th	
OPI/CPW-04	bowl	ubw	Black double ring	late 17th–18th	
OPI/CPW-19	bowl	ubw	Double ring	late 17th–18th	
OPI/CPW-026	bowl	ubw	Unidentified seal in double ring	mid. 18th	

Shipwreck Dates

Comparisons with shipwreck cargoes help to confirm the date of the collection, with reference to the *San Diego* (1600), *Sao Gonçalo* (1630), *Mombasa Portuguese Wreck* (?1680-1681), *Vung Tau* (1690's), *No 1 Wanjiao Shipwreck* (1690's), *Oosterland* (1697), *Bennebroek* (1713), *Ca Mau* (ca 1725), *Geldermalsen* (1752), and the *Diana* (1817) (Table 4.7). This last reference, which applies to three bowls (CPW-37, 38 and 46), might imply that the site was visited after the outpost was relocated in 1732, except that such wares have a long history of productions, as is evident by their links to shipwrecks including the *Mombasa Portuguese Wreck* (?1680-81) and the *Geldermalsen* (1752) (see Table 4.7). A single Japanese apothecary flask at Oudepost also links the deposit to the Moat, dating here as there, between 1670 and 1740 (Kyushu 2000: 135 no. 303; Volker 1959: 73).

Intersite Comparisons

The three collections described in this chapter accumulated during the VOC period at the Cape. The Asian wares in the Castle sites were deposited as secondary fills that emanated from garbage dumps within the Castle, and in the case of the Moat, from a nearby shambles as well (Chapters 2 and 3). In contrast, Asian wares at Oudepost I probably emanated from passing ships.

Numbers/MNV

Ratios of sherds to MNV range from 8:1 at Oudepost to 5.5:1 in the Moat to 2:1 in F2. This variation may be explained by the differences in site identity and formation processes, in that Oudepost I was an occupation site where whole vessels that broke on the site stayed buried in the sand, whereas the vessels at the other two sites broke elsewhere and were intermittently re-deposited in our sites as secondary fills.

Form/Subform

A wider variety of forms occurs in the Moat and Oudepost than in the Old Granary (F2). Tea wares are more prominent in the Moat, whereas bowls and dishes predominate at Oudepost I. The large proportion of tea wares in the Moat did not apparently come from broken shipments but represents fragile wares broken in use. Hollow wares at Oudepost, like bowls, might initially have carried food from passing ships. Tea drinking may be implied from cups and saucers and also from the presence of teapots at all three sites. Provenance types include Yixing teapots similar to the first teapots used in the West, a possible Chinese or Japanese example from the Moat, and a Chinese Export Ware one from Oudepost.

Ware, Provenance Type, Decoration

Ware

Four Ware types and six Provenance types are found in the two Castle sites. Islamic Fritware (IPF) is absent at Oudepost, but given its tiny incidence at the Castle sites, this might be a chance omission.

Provenance Type

The collections are dominated by Asian porcelain within which Chinese Export Porcelain outnumbers its Japanese counterpart. The incidence of Coarse Porcelain Ware varies significantly between sites, forming 5-7% of the collection in F2, about 15% of the Moat collection, and 36% of the collection at Oudepost I. A marked temporal trend is apparent in the increase in Coarse Porcelain Ware in the sealed levels of the Moat (Table 4.1a, b).

Decoration

Both Chinese and Japanese Export porcelains are dominated by average to below-average quality, ordinary blue-and-white wares. Almost all porcelain is glazed, including a small number of incised and stamped sherds, and almost all the decoration is hand painted (Table 4.4). The incidence of patterns and decorations found here may not reflect the finer appreciation of their consumers, because it is widely thought that their significance to their makers was not shared with the European market (Klose 2007: 35; Valfré 2000: 117).

Description (including Patterns and Marks)

All three collections share some of the same patterns and marks. The Chinese Export Wares from the Moat show the greatest variety, probably because the collection there is larger than those from the other two sites. The similar range of Coarse Porcelain Wares and the Yixing Asian Stonewares present in the Moat and Oudepost I suggests that the VOC consigned similar goods to their outstations as they did to ships.

Looking more closely at the patterns themselves, a notable trend is the presence at the Moat and Oudepost I of Chinese and Japanese kraak-style plates. Their distribution throughout the Moat sequence suggests that, whatever else might have been available through private trade, the VOC continued to order kraak-style plates and dishes from Japan and China for their stations and ships well into the 18th century. Both are versions of the original 17th century Chinese kraak-style ware, which was the first type of Chinese porcelain to be imported into Holland in the early 17th century. Kraak-style plates continued to be produced after China reactivated the export Jingdezhen kilns in the early 1680s, and Chinese copies of Japanese kraak-style plates made in the late 17th century and early decades of the 18th century reveal a long-term

Dutch love and demand for this paneled design that extended beyond imports to locally made, tin glazed earthenwares.

Enameled wares constitute a very small proportion of the collection and include *famille verte*, Chinese Imari, and Japanese Imari. The absence of *famille rose* in all three sites confirms that it did not reach the Cape until after the first part of the 18th century, around the 1730s (Hart and Halkett 1993: 25; Klose 1997: 127-129; Klose 2007: 94 Figs. 68, 69).

Coarse Porcelain Wares are common at Oudepost and include Swatow-style sherds of a type that was made between 1557 and about 1662 (Adhyatman 1999: 39-48; Harrisson 1979: 12, 241 Fig. 123; Harrisson 1995: 1-5; Kerr 2009: 14). Their popularity at Oudepost, compared to their rarity in the Moat (C-CPW-06) and absence in the Old Granary (F2), might signify that they were commonly used on the ships. Similar wares were distributed for common household use and formed part of the Eurasian syncretic culture throughout the VOC trading network.

The range of marks presented here, such as conch shell, sacred fungus (*linghzi*), and artemesia, links the sites into a common trade network during the late 17th-18th centuries.

Reference

Cross-referencing in all three sites links them together through shipwreck cargoes and other collections dated to the late-17th-18th centuries.

Site Reference (including cross mends)

Similarities in form, ware type, provenance type, decoration, patterns, and marks link different levels and units within and among all three sites. The Moat has very few cross mends between levels suggesting rapid accumulation of residues here. The absence of cross mends in the Old Granary (F2) helps confirm that the residues came from exposed dumps elsewhere. At Oudepost, numerous cross mends point to post-depositional disturbances (Schrire et al. 1993).

Date

All three sites fall roughly into the period from the mid-late 17th to the early 18th century. Our earliest dated ceramics include the Qing Domestic Late Transitional ware (early Kangxi) in the 'Master of the Rocks' style from the Moat (A2-CPO-212) and a bowl painted with the 'Eight Horses of Mu Wang' from Oudepost I (CPO-093). In the Japanese category, apothecary flasks in the Moat and Oudepost I date between 1670 and 1740. The mid-16th to late 17th century version of the Coarse Porcelain Swatow-style wares that were made between the 15th and 17th centuries appear in the lowest level of the Moat and at Oudepost I. These finds join the earliest ceramic from another Cape site, a single fragment of kraak ware from the Grand Parade (Abrahams 1996: 99). Our latest date for these collections is predicated on the absence of *famille rose* in all three sites, dating them earlier than its first appearance in the 1730s at the Cape farm, Elsenburg (Hart and Halkett 1993: 25; Klose 1997: 126-129; Klose 2007: 94 Figs. 68, 69).

The majority of the underglaze blue export wares therefore fall into the period post-1680 and pre-1730. Specific dating to the 1690s is derived from commemorative cups and saucers from the Moat showing the Rotterdam Riots of 1690. The presence of Islamic Persian Fritware (IPF) in the Moat and the Old Granary (F2) actually ends up saying very little about dating, due to the tiny numbers concerned and its problematic presence in late levels in the Old Granary (F2). From 1652 to 1682, official VOC trade in Islamic wares was very small (Klose 2000: 74), and official VOC Islamic trade ceased when the Jingdezhen kilns reopened in the 1680s (Volker 1971: 113-16). Such Islamic pottery as appears later on VOC shipwrecks, including the *Oosterland* (1697) and *Bennebroek* (1713), probably emanated from private trade. Links with the cargo of the *Diana* (1817) possibly point to long-term production of a Coarse Porcelain pattern.

Conclusion

We have done our best to compress a large and initially daunting amount of information into comprehensible catalogs and summaries, and it now remains to draw the major inferences from these findings.

Starting with age, the majority of elements in all three collections date between the mid-17th and early 18th centuries. Our findings help position the Cape as the westernmost point of a VOC inter-Asiatic trade network that extended across the Indian Ocean, from Africa to Indonesia. Although the Cape lay midway between Europe and the East, the VOC found it more convenient and cheaper to provision it from Batavia than from Europe.

The collections from our two main locales emanate from different provisioning sources. The Moat collections reflect deliberate provisioning strategies of the VOC, and to a lesser extent, a degree of personal consumption through private trade. In contrast, the Oudepost finds probably came there as trade goods or gifts, or as garbage off passing ships that might not all have been owned by the VOC.

Where consumer class and economic status are concerned, there is a difference between what are considered luxury goods today and such goods at the moment that these collections were amassed (see Hall 1992: 389-90). Most of our wares were relatively inexpensive household goods that were shipped by the Company to their Cape station, either to provision their garrison or for sale to the public. The overall range and quality of the Cape Asian collections contrast strongly with those of a metropolitan center, such as are currently housed in the

Amsterdam Museum, and the variation serves to epitomize the vast differences of class and wealth between the peripheral, impoverished Cape station and the VOC homeland.

To elaborate: around 1730, enameled ware was more expensive than regular blue-and-white ware, and its very low frequency throughout these collections points to a tiny market for such expensive goods at the Cape (Christiaan Jörg 2005, pers. comm.). Likewise, although Chinese Export Wares (CPO) were more costly than some others found at the Cape, the overall quality of CPO in our three sites is inferior to much of that found in coeval domestic contexts in Holland, and for that matter, in a wealthy Cape burgher household of that time (Hart and Halkett 1993). Japanese monogrammed wares might fetch high prices at auction today, but this was not necessarily the case when the wares from the Moat and Oudepost were amassed. Large decorative monogrammed plates that survived the voyage to Europe might have been valued there as rare objects, but smaller vessels such as those found at our sites were routinely requisitioned for use on VOC settlements and outposts where their value was probably no greater than that of monogrammed wares used in hotels today. Finally, we interpret a handful of fine Moat ceramics—including a 'Botanical' pattern plate, some fine Imari and *famille verte,* and some of the finer Japanese wares—as signifying the presence of wealthy private traders at the Cape. In contrast, two of our highest quality pieces—the Oudepost I bowl with the Eight Horses of the Emperor Mu Wang and a *famille verte* cup—do not denote local wealth because they come from a small outpost where they were probably dropped off by passing ships.

Although porcelain *per se* may have signified high status in Europe, America, and the Caribbean, archival records confirm that this was not the case at the Cape. Here, in the early 18th century, decorative porcelain is listed in household inventories from a well-off house with presumably wealthy owners (Malan 2007: 27), but 150 cups and saucers in a modest town house might denote lodgers (ibid. 29) and in the mid-18th century listing of 68 vessels in the estate of an exiled Chinese woman, an eating house (Armstrong 2007: 80). The relative predominance of porcelain compared to other ceramics increased over time, with it eventually becoming the everyday ceramic here in the 18th century. Owned and used by high officials, burghers, and poor artisans alike, it must have been familiar to many residents who came to the Cape from the East in various capacities, whether as VOC officials or slaves. In short, despite the beauty of the Asian ceramics themselves, our analysis and interpretation of the Asian ceramics does not reflect conspicuous consumption or good taste. The essential message of these wares is modesty, a reticence that speaks less to notable wealth than to the position of the VOC Cape in the ambit of an inter-Asian trade network that persisted well into the 18th century (Jörg 2003: 12).

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CHAPTER 5

Coarse Earthenware Collections from VOC Sites at the Cape

Stacey C. Jordan

"…diverse kinds of baked and glazed earthenware…"[1]

Introduction[2]

The production of lead-glazed utilitarian coarse earthenware at the colonial Cape began in 1665, when two Dutch East India Company (VOC) potters from Europe arrived at the settlement after having been discovered on a passing ship and taken onto land (Boëseken 1973: 352). In his diary entry of 26 September 1665, Cape Commander Wagenaer wrote "…this morning, for the first time, diverse kinds of baked and glazed earthenware were taken from the oven in the new pottery and found to be very good. Some were sold this afternoon on the public market, and a considerable quantity kept back for the next market day…" (Wagenaer in Boëseken 1973: 222).

To produce these local vessels, iron-rich clay was taken from the decomposing residual granite in the slopes of the mountains ringing the Cape settlement, known as the Table Bowl. Until 1669, available raw material was baked in what would become the Company's smelting house and, after 1670, in the company's pottery kiln located on the outskirts of the settlement southwest of the Company's gardens (Brommer et al. 2009: Sheets 138-139, 144, 145; Western Cape Archives and Records Service: M3/18, M1/377; see Figure 5.1). The firing produced characteristic coarse, dark red, quartzose fabrics which contrast with the fabrics of European imports (see Jordan et al. 1999 for detailed discussions of coarse earthenware petrographic characterization). Glazes were also produced locally, as inferred from a notation in the monthly supply list of the Company, dated February 1684, recording the provisioning of 12 pounds of "lead…to the potters" (ARA 1684: 676).

Local Cape earthenware vessels can generally be distinguished from the red-bodied imports of northwestern Europe in a variety of ways. European red-bodied imports, produced from the abundant alluvial clays located along the Rhine-Meuse River system, have a finer, lighter red fabric and often carry white, clay, slip decoration or colored slips and glazes as a result of the intentional inclusion of mineral oxides which fired to various colors. Northwestern Europe also produced a variety of light bodied wares made from iron-poor clay raw materials that resulted in pink, white, or buff fabrics. These distinctive vessels can clearly be identified as imports in Cape collections, because iron-poor, light-firing raw material for the production of vessels was unavailable there (Sharma Saitowitz 1994, pers. comm.).[3] Other distinctly European fabrics include the products of Bergen op Zoom, whose characteristically sandy, light orange fabrics emanated from the fatty, highly weathered clays of that locale (Schaefer 1994: 41). This loamy alluvium is easily identifiable as a result of its fine texture and typically bright orange color (Munsell 5YR 6/6 to 5YR 7/8, 'reddish-yellow') resulting from the bleaching effect of aluminum in the clay. European imports appear to have trickled into the Cape as personal possessions; but no record of the international importation of such wares has been found in the records of the Algemeen Rijksarchief in Amsterdam (ARA), or the archival records of the Cape.

Pottery production at the Cape continued over the course of the 17th and 18th centuries, carried on by a series of VOC potters originating, like so many VOC personnel, primarily from Germany but also across the breadth of the

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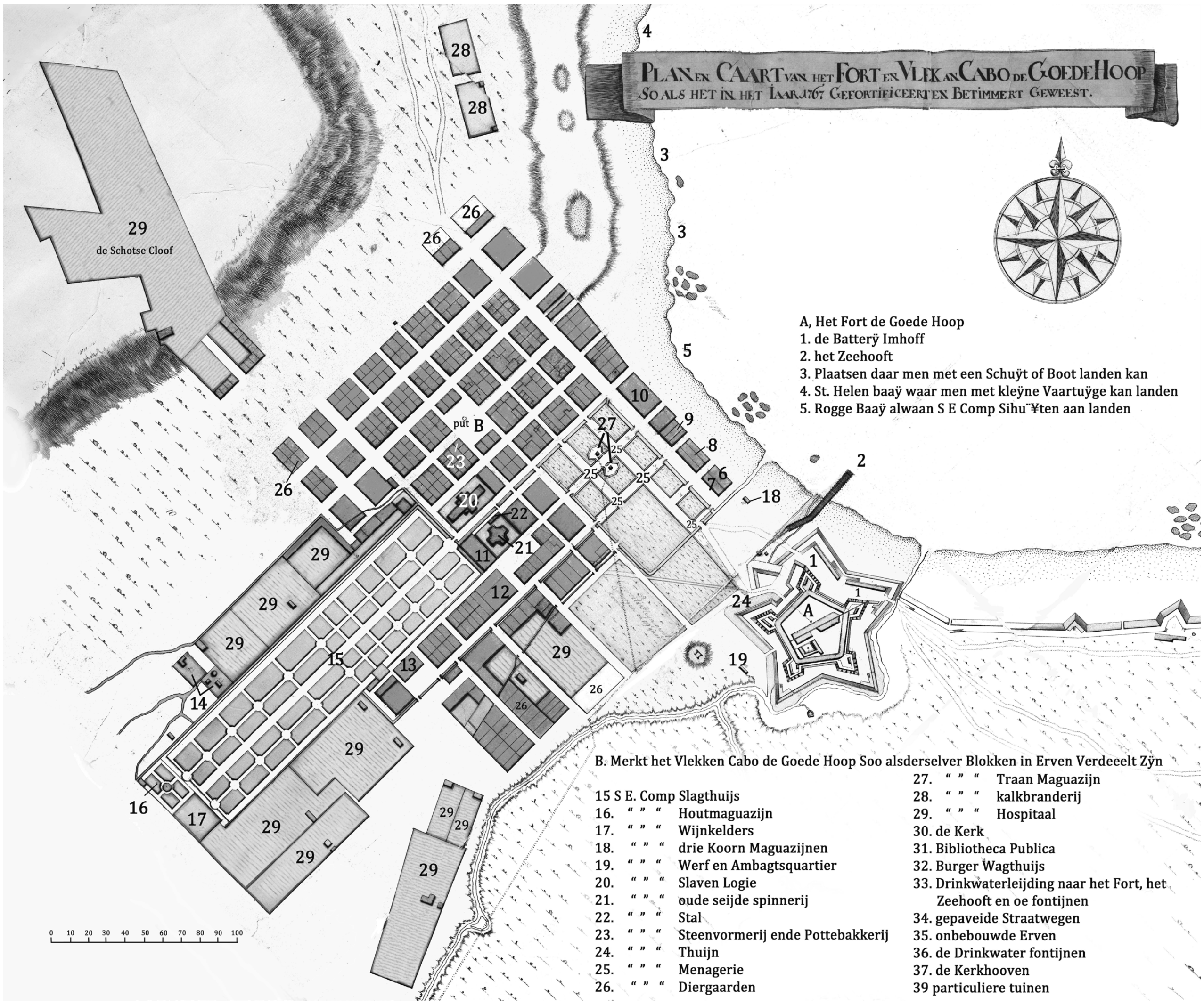
PLAN EN CAART VAN HET FORT EN VLEK AN CABO DE GOEDE HOOP
SO ALS HET IN HET IAAR 1767 GEFORTIFICEERTEN BETIMMERT GEWEEST.
A, Het Fort de Goede Hoop
1. de Batterÿ Imhoff
2. het Zeehooft
3. Plaatsen daar men met een Schuÿt of Boot landen kan
4. St. Helen baaÿ waar men met kleÿne Vaartuÿge kan landen
5. Rogge Baaÿ alwaan S E Comp Sihu¨¥ten aan landen
B. Merkt het Vlekken Cabo de Goede Hoop Soo alsderselver Blokken in Erven Verdeeelt Zÿn
15 S E. Comp Slagthuijs
16. " " " Houtmaguazijn
17. " " " Wijnkelders
18. " " " drie Koorn Maguazijnen
19. " " " Werf en Ambagtsquartier
20. " " " Slaven Logie
21. " " " oude seijde spinnerij
22. " " " Stal
23. " " " Steenvormerij ende Pottebakkerij
24. " " " Thuijn
25. " " " Menagerie
26. " " " Diergaarden
27. " " " Traan Maguazijn
28. " " " kalkbranderij
29. " " " Hospitaal
30. de Kerk
31. Bibliotheca Publica
32. Burger Wagthuijs
33. Drinkwaterleijding naar het Fort, het Zeehooft en oe fontijnen
34. gepaveide Straatwegen
35. onbebouwde Erven
36. de Drinkwater fontijnen
37. de Kerkhooven
39 particuliere tuinen
29 de Schotse Cloof
put B
0 10 20 30 40 50 60 70 80 90 100

Figure 5.1. Plan en Caart van het Fort en Vlek an Cabo de Goede Hoop so als het in het Jaar 1767 Gefortificeerten Betimmert Geweest, "Plan and Map of the Fort and Settlement at the Cape of Good Hope such as it was Fortified and Built in the Year 1767." Nationaal Archief, 4. VEL 838. The pottery works are shown as No. 23. See also Brommer et al. 2009: Sheets 138-9 and Western Cape Archives and Records Service: M 1/377. (Courtesy Nationaal Archief, Den Haag)

VOC's European sphere of influence (Jordan 2000a: 177-206). Locally produced pots, thrown by the European potters, were made in familiar European forms and used for food preparation and service, heating, and lighting, as well as for storage. A detailed description and typology of locally excavated coarse earthenware vessel forms is employed here and in the accompanying catalogs in which the collections from the Castle Van der Stel Moat (M90) and the old Granary (F2), as well as from Oudepost I (OPI), are reexamined (see Jordan 2000a: 86-119; for sites, see Chapter 2).

Analysis

Site/Level

Each site had different depositional processes and, as a result, different stratigraphic relationships (see Chapter 2). Within each site, however, analysis proceeded with reference to site levels in order to discuss, to the extent possible, potential differences between stratigraphic components and evidence of depositional processes within each site.

Object Number and MNV (Minimum Number of Vessels)

Object numbers were given to all individual vessels within a site, as well as to each collection of miscellaneous undiagnostic fragments. Following Spencer-Wood (1987: 332), an individual vessel consists of distinctive sherds that cannot be considered part of any other vessel and which differ significantly from other sherds in body color, glaze color, decorative style or color, or shape. Due to the vagaries of the firing process, subtle differences in fabric, glaze, or decoration color on a body sherd were considered diagnostic if, and only if, that sherd could not, on the basis of shape or decoration, possibly be part of an already identified vessel. Any sherds that could not be definitely identified as part of one particular vessel were called 'Miscellaneous' and were excluded from this analysis.

Where individual vessels include sherds from multiple stratigraphic contexts, the MNV was attributed to the unit containing the largest number of sherds. If that happened to be a non-provenanced unit (NP), the actual provenanced unit was selected. For vessels with equal numbers of sherds in two levels, the uppermost one was used.

Origin

The general locale of origin was recorded for each coarse earthenware vessel. Necessarily broad and based on visual evidence as well as comparative references, these include European, Cape, and the undiagnostic category of European/Cape. Within the European-style coarse earthenwares at the Cape, suspected imports and suspected local products are generally similar in form, but can be visually distinguished by small but consistent differences in both the appearance of the fired fabric and the style. Suspected imports are more finely textured, are generally lighter in color (clustering between 2.5YR 5/8 [red] and 2.5YR 6/8 [light red], varying to 2.5YR 7/6 [reddish-yellow] and 5YR 6/8 [yellowish-red]), and may carry colored glazes and slip decoration. White-bodied (7.5YR NB/ -, 5YR 8/4 to 10YR 8/2), pink-bodied (7.5YR 7/4 to 10YR 8/4), and very pale brown-bodied (10YR 8/3) vessels are also considered to have been imported, since no pale-firing earthenware clays are found in the Cape area and there is no record of clay importation in the VOC's extensive and highly detailed documentation and accounting (Sharma Saitowitz 1993, pers. comm.). Products believed to have been locally manufactured by the VOC have coarse, friable red bodies (predominantly Munsell 2.5YR 4/6-5/8 and lOR 5/6-5/8, varying to 5YR 4/6-6/8 (yellowish-red and reddish-yellow)) and, usually, clear lead glazes. While suspected-local products represent common Germano-Dutch coarse earthenware forms, they exhibit a stylistic simplification, without elements common in European products such as frilled bases, thumb-turned feet, and slip decoration.

Imported European Coarse Earthenware

The raw materials for coarse earthenware production were readily available in the Netherlands, where Quaternary alluvial and marine clay deposits underlay much of the estuarine land (Bult and Nooijen 1992: 68, Schaefer 1994: 40). Excavations in Holland suggest that the Dutch East India Company had access to earthenwares from kilns across the area that today encompasses the Netherlands, northwestern German, and northern Belgium (see Schaefer 1994). The raw material for the red-firing coarse earthenware pottery produced in this area is fluvial clays deposited predominantly by the Rhine-Meuse river system during the Quaternary era (Bult and Nooijen 1992: 68; Schaefer 1994: 40). This ferrous clay produces reddish bodies under oxidizing kiln conditions, when the oxygen interacts chemically with the iron of the clay, and grayish bodies, when in a reducing environment with little available oxygen. The European redwares produced from this clay were primarily utilitarian vessels. Household forms such as tripod cooking pots, skillets, saucepans, storage jars, mugs, fire stops, braziers, plates, bowls, and dishes are some of the familiar forms common in 17th and 18th century European and colonial households (cf., Baart et al. 1986, Huey 1985: 74).

Small quantities of white-bodied wares, made from iron-poor clays found along the Meuse River in the Liege and Limburg provinces of the southern Netherlands and present-day Belgium, appeared in the United Provinces by the 12th century. Buff- and white-bodied utility vessels have clay compositions more closely resembling the refined tin-glazed earthenware produced later in the Netherlands during the 17th and 18th centuries (Wilcoxen 1987a: 84-85). Due to their finer fabric, light-firing raw materials were often used to produce smaller, more delicate articles like bowls, cups, and cream jugs (Wilcoxen 1987b: 40-41). Production of these white-bodied vessels subsequently moved northwest from its center at the city of Liege on the Meuse River to the Flemish regions (Wardle 1989: 46, Wilcoxen 1987a: 56). Most white-bodied vessels, however, continued to be imported from the Meuse Valley as well as Lower Rhenish centers like Cologne (Germany) until the 16th century, when the Dutch began importing clay raw material and producing their own white-bodied vessels in larger quantities (Bult and Nooijen 1992: 71, Wardle 1989: 46). The clays used for white-bodied earthenware production and slip decoration were imported from the early Flemish production centers, Germany, and England (Schaefer 1994: 355). The early Pleistocene loam of Bergen op Zoom is also easily identifiable by its fine texture and typically reddish-yellow color (Munsell 5YR 6/6 to 5YR 7/8), which results from the bleaching effect of aluminum in the clay.

Certain decorative elements provide a key to a vessel's origin. Niederrhein or Lower Rhine vessels, produced between Cologne, Germany, and the border of the Netherlands from the late 17th to the early to mid 18th centuries, replicate some of the motifs found on earlier 17th century German Weser, Werra, and Wanfried wares. Interior hollow ware surfaces with marbled red and white slip and randomly arranged copper splotches are typical of Niederrhein products (Hurst et al. 1986; Jan Baart and Wiard Krook 1995, pers. comm.). Another typical Niederrhein decorative motif from the first quarter of 18th century consists of a central sgraffitoed flower with petals alternately red and green and concentric sgraffito lines incised through a red slip band below the rim (Hurst et al. 1986: 264-266). Lastly, stabbed or rouletted decoration with green and brown or dark red slip in between is also a typical Niederrhein motif dating to the first half of the 18th century (Hurst et al. 1986: 258; John Hurst 1996, pers. comm.).

Locally Produced Cape Coarse Earthenware

Like so many small-scale industries at the Cape, the kiln or *pottebackerij* was located near its raw material source. Petrographic analysis of suspected local products suggests that weathered Cape basal granite found near the pottery works in the Table Bowl is the source of the local earthenware clay (Jordan et al. 1999). The local vessels are characterized by a coarse, friable red body, containing angular inclusions, polycrystalline quartz, weathered plagioclase feldspar or sericite, and biotite, all of which are elements that reflect an immature residual granitic clay source and mirror the composition of the Cape basal granite. The undecorated lead-glazed, red-bodied products of the local VOC pottery were not intended for trade but for sale to the local population. Cooking utensils—tripod cooking pots, lids, saucepans, and bowls—that are commonly excavated on Cape sites were probably produced to complement more durable but expensive metal vessels, and perhaps even to replace them, in the garrison kitchens or poor households (see Jordan 2009: 41).

The lead glazes were locally made. A monthly supply list of the Company for February 1684 records the provisioning of 12 pounds of "lead...to the potters" (ARA 1684: 676). Such records suggest that the Cape potters continued the European tradition of using transparent lead oxide glazes to make the low-fired coarse earthenware impermeable. As for decoration, the more elaborate elements of simple Dutch redwares—like frilled bases or thumb-turned feet—are not evident on the locally produced Cape vessels. While perhaps partly a function of the 18th rather than 17th century provenance for much of the Cape material, this simplification is nonetheless apparent. Such simplification in decoration and decreased variation in forms may be seen in other medieval and post-medieval contexts, where is has been interpreted to reflect limits on the transfer of skills, on raw material, and on labor availability (Gorman et al. 1985; Turnbaugh 1985). Conversely, increased decorative elaboration has been seen as a reflection of artisans' response to increased consumer demands in competitive markets (Le Patourel 1968: 122; Gaimster 1986: 19, 22). The VOC's monopoly over the production and distribution of local pottery and the constraints on available raw material and skilled artisans, were all likely contributors to the resulting elemental aesthetic of the Cape's coarse earthenware.

Undiagnostic European

This category is used for those utilitarian coarse earthenware vessels whose place of origin could not be determined on the basis of fabric, body color, glaze or decoration.

Form

Taken together, coarse earthenwares from the Cape sites span the range of utilitarian vessel forms present in Europe and consist primarily of tableware, kitchen and cooking vessels, and heating and lighting utensils. Each vessel has been assigned a form, some of which, like *kookkan* and *kookpot*, employ the Dutch nomenclature for its particular descriptive relevance (Figure 5.2). Brief descriptions of the vessel groups and forms are provided in the following sections, grouped according to function (see Jordan 2000a, b for detailed descriptions of the typology).

Storage

Storage Pot

These handleless squat, conical vessels possess flat, angular bases. As in the Netherlands, storage pots of suspected local manufacture are characterized by interior and sometimes exterior glazes.

Olla

Iberian *olla*, or shipping jars, were used to transport olive oil, wine, and honey around the world. Those found in these Cape collections are handleless and almost carrot-shaped, with thick rim collars and sandy pink bodies. This type of *olla*, or olive jar as it is often known, possesses a soft, sandy fabric and often appears to have a whitish slip on its unglazed surface (Marken 1994: 42; Schaefer 1994: 131).

Pear Pot

The glazed pear pot (Dutch *perepot*) has a flat base, broad shoulder, and wide collar rim, and among its other uses may have been used to preserve pears and other fruits by steeping them in honey or brandy (Ruempol and Van Dongen 1991).

Spouted Pot

This specialized form for the storing and pouring of liquids (Dutch *tuitpot*) varies in form and is defined primarily by its pouring spout (Ruempol and Van Dongen 1991).

Salve Pot

These small, rough multifunctional vessels carried ointments, salves, creams, pills, teeth cleansers, and even pigments (Schaefer 1994: 311-313). Glazed only on the interior, their flat bases round off into nearly vertical walls.

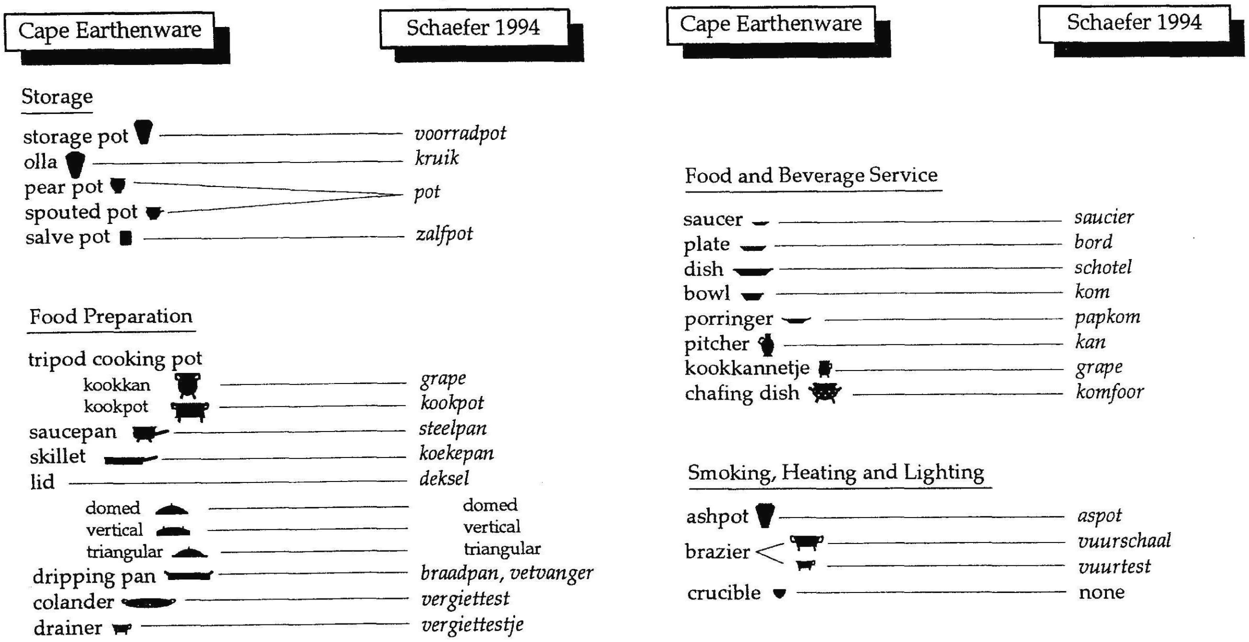
Cape Earthenware
Schaefer 1994
Storage
storage pot voorradpot
olla kruik
pear pot pot
spouted pot
salve pot zalfpot
Food Preparation
tripod cooking pot
kookkan grape
kookpot kookpot
saucepan steelpan
skillet koekepan
lid deksel
domed domed
vertical vertical
triangular triangular
dripping pan braadpan, vetvanger
colander vergiettest
drainer vergiettestje
Cape Earthenware
Schaefer 1994
Food and Beverage Service
saucer saucier
plate bord
dish schotel
bowl kom
porringer papkom
pitcher kan
kookkannetje grape
chafing dish komfoor
Smoking, Heating and Lighting
ashpot aspot
brazier vuurschaal
vuurtest
crucible none

Figure 5.2. Typology of Cape coarse earthenware in relation to Schaefer 1994. (See Jordan 2000a:93)

Food Preparation

Food preparation vessels at the Cape reflect the common suite of utensils found in Europe, including the tripod cooking pot, saucepan, skillet, lid, dripping pan, colander, and drainer. Missing, however, is the milk basin used in dairy production, so found often in Europe.

Tripod Cooking Pot

Locally produced tripod cooking pots dominate the coarse earthenware collections from many VOC sites and are separated into two forms—the *kookkan*, a two-handled bullet-shaped vessel, and the *kookpot*, a low, wide cauldron form. Both were used over an open hearth for boiling and simmering stews and potages. Rim-types include the 'common rim,' an 's'-shaped profile that is sometimes concave on the inner surface with an exterior bead between the rim edge and neck, and the less frequent vertical 'flanged rim' with an exterior horizontal ridge, appearing in section like a half-cross. Both *kookkannen* and *kookpotten* possess two vertical *ooren* or ear handles. Vessels at the Cape have short, angled feet, perhaps reflecting the 18th century age of much of the sample, when the earlier shell-like lobe feet became less common. Lead glazes cover the interior and extend over the rim.

Saucepan

Used for heating liquids and melting fats, these round-bottomed vessels have a pouring lip located one-quarter of the way around the rim from their rod handle. Handles are either hollow tubes or straight straps which curl up at the edges. By the 17th century, the hollow rod form was seen more often on German imports, while the curled handle remained characteristic of Dutch products (Janowitz et al. 1985: 42; Schaefer 1994:48, 87; Jan Baart and Wiard Krook 1995, pers. comm.). Exterior rims vary, with Bergen op Zoom products often carrying an overhanging rim that is triangular in section.

Skillet

Skillets at the Cape resemble their modern counterparts and were used in similar ways. They have straight walls, angling slightly outward from base to rim. Carrying the stylistically Dutch celery handle, these vessels have rims whose shapes suggest they were made to accommodate lids.

Lid

Lids in the Cape collections are classified according to shape as domed, vertical, or triangular. Domed lids are simple, curvilinear forms whose rim edge rested upon the rim of the accompanying cooking pot, on either a horizontal exterior flange or concave space on the interior of the common rim. This form has either a central knob handle or two *worst*-form handles on opposite sides of the lid exterior. Vertical lids have two *worst*-form handles and are typically less curved along their surface, with edges that descend vertically 40-50 mm from the curved central body. Some vertical lids have a depression, either a channel on the lid concentric to the rim or a full depression over the entire surface area, for placing hot coals to facilitate baking and pot-roasting. Triangular lids have rims which appear most often like a solid triangle in cross-section, but also occasionally like a checkmark or inverted chevron, with the bottom point of the triangle being the point of contact with the cooking pot.

Dripping Pan

Like dripping pans today, these shallow rectangular or oblong dishes were used to catch meat drippings during spit-roasting (Schaefer 1994: 117). The ovoid, square-rimmed form seen in the Cape collections, while uncommon in Europe, has parallels in published examples of European dripping pans (cf. Bult and Nooijen 1992: 88 Fig. 95 ; Jan Baart and Wiard Krook 1995, pers. comm.)

Colander

Seventeenth- and 18th-century colanders were typically flatter than those of today. Held by two horizontal handles along the rim, colanders usually measured 300 mm or larger in diameter and were used to drain and rinse foods such as shellfish, mussels, fish, and vegetables. European colanders were usually fully glazed on both the exterior and interior surfaces, while Cape examples appear to be glazed on the top surface only, perhaps reflecting the parsimonious use of scarce glaze raw materials.

Drainer

Drainers are small, single handled vessels characterized by high, perforated, vertical walls and squared rims. Used to drain berries and other fruits as well as to make soft cheeses, these vessels were also used as berry packages in the markets of Western Europe. Drainers were made in fine white-firing clay, which allowed for the production of more delicate, thin-walled vessels. Given the absence of white-firing earthenware clays at the Cape, these light-bodied drainers found in the Cape collections are probably European imports (Sharma Saitowitz 1993, pers. comm.).

Food and Beverage Service

Saucer

Saucers are classified as flatware under 170 mm in diameter. Generally serving condiments like salt, vinegar, or mustard, saucers possess a hammer-headed rim that '…slopes down to the edge of the cavetto.... At the cavetto the angle of the walls becomes abruptly steeper, curving to the center…' (Schaefer 1994: 265). Saucers in these collections possess either a footring or the thick flat base seen on the plates and dishes.

Plate

Plates range between 170 and 250 mm in diameter, and generally have a flat, angled spill rim leading to the slope of the cavetto. Many of the vessels seen in these Cape collections are light-bodied, and resemble the hammer-headed Werra and Wanfried wares from the area around the Werra River in Germany. These contrast with plates in the local Cape fabric; the rim of one crudely potted plate in the local fabric is simply the rounded edge of the body wall. While 17th century Dutch plates may possess lobe feet or a footring, examples from these collections in both local and imported fabrics have only a thick flat base.

Dish

Dishes have the same form as plates, with a wide range of hammer-headed rims. Measuring over 250 mm in diameter, these vessels were often used as communal vessels when serving meats and vegetables (Schaefer 1994: 157). Examples of both typical Nederrheinische slipware (John Hurst 1996, pers. comm.; Jan Baart and Wiard Krook 1995, pers. comm.) and undecorated redware dishes are present in Cape collections. Like saucers and plates, these dishes have flat bases. Schaefer indicates that German potters generally produced flatwares with round, flat or slightly concave, solid bases (1994: 166). Given this, the presence of this base form on local undecorated redware dishes at the Cape may reflect the production of familiar forms by a German VOC potter.

Bowl

This utilitarian form was used for both food consumption and food preparation, carrying stews or potages as well as mixing ingredients during cooking. Cape-produced bowls have rounded walls and a thickened, projecting rim similar to some European vessels (Schaefer 1994: 141). However, the local form has a flat base with no evidence of feet or footrings. It differs from Dutch forms, which have a more conical or funnel shape and rounded bottoms sitting on a thick, outward flaring footring.

Porringer

These handled bowls for serving soft foods like porridges and potages occur in both European and local Cape fabrics. European forms are thin, shallow porringers with North Holland-style slip decoration (Schaefer 1994: 96, 143, 203) and pie-crust handles. Their vertical rims, with rounded edges that curve out gently, also point to a European origin (Schaefer 1994: 195). In contrast to this, locally produced porringers have thick outward flaring walls that end in a triangular collared rim reminiscent of saucepans. These vessels also carry heavy interior potting marks, and typically have two *worst*-form handles attached to the rim. Porringers in these Cape collections have clear lead glaze on both the exterior and interior.

Pitcher

Pitchers in these collections are recognizable from the thin rim and neck sherds which exhibit the characteristically Dutch *ribbels* or concentric incisions (Schaefer 1994: 231, 233). Most appear to be unglazed, and were likely used to carry water precisely because evaporation through the unglazed, porous surface enabled water to remain cool (Schaefer 1994: 231). A local form is also present, consisting of a thick-walled vessel with highly convex walls and a vertical *worst*-form handle. This pitcher carries heavy potting marks and has a flat base, with a brown lead glaze on both its interior and exterior surfaces.

Kookkannetje

The tripod *kookkannetje* (Ruempol and Van Dongen 1991), meaning 'little *kookkan*' and also known as a 'pipkin' in some English sources, was used for the individual service of porridges or potages, as well as for beverage service. The *kookkannetje* is a short, bulbous form like the *kookkan*, and is present in these collections in European fabrics, with colored glazes and slip decoration. While some works do not distinguish this form from other tripod cooking vessels (cf., Clevis and Smit 1990; Schaefer 1994: 95), it is classified separately here because the form reflects an individual level of food production and consumption (Schaefer 1994: 95; Jan M. Baart and Wiard Krook 1995, pers. comm.; see also Gabriel Metsu's 'The Sick Child' and Nicolaes Maes' 'Old Woman Praying'). None of the vessels show evidence of charring, suggesting their primary use here in food service rather than production.

Chafing Dish

Chafing dishes were used to support food service vessels over smoldering coals for warming. They appear in a variety of forms, all sharing the common feature of three arms (*nokken*) that rise from the rim to support the vessel being heated. Some also have perforated walls for increased ventilation (Schaefer 1994: 120). Two forms are apparent in the Cape collections. The first is a low, wide tripod chafing dish with support arms. The second is a more spherical form with both ventilation holes and support arms, as well as horizontal handles and a tall footring. The slip decoration on this form suggests an origin in or influence from Friesland in the northern Netherlands (Jan Baart and Wiard Krook 1995, pers. comm.).

Smoking, Heating, and Lighting

Forms found in the Cape collections representing smoking, heating, and lighting include braziers and crucibles. The candlestick, though common in European coarse earthenware collections, is absent here.

Brazier

These vessels held coals for lighting tobacco pipes and personal heating. Braziers have round bases, with high walls rising from a low shoulder and an opening that is either round or diamond-shaped. The diamond-shaped opening, formed by pulling the round rim to create four corners, arose in the early 17th century and was designed to accommodate resting tobacco pipes. Either a vertical *oor* handle or a short rod handle was used to carry these small vessels, with the handle generally placed on the corner of diamond-shaped vessels (Schaefer 1994: 338-339). Examples in these collections are diamond-shaped tripods glazed on both the interior and exterior.

Crucible

One final vessel form identified in these collections is the crucible. While not, strictly speaking, coarse earthenware, these coarse-bodied vessels are rounded forms possessing flat, rounded or pointed bases (Tylecote 1982).

Other

Starling Pot

This globular form resembles a narrow-necked pot resting on its side with a handle placed on the vessel's side that allowed it to be suspended. One side of the pot is flattened, enabling it to rest against the wall. This flattened side had either an opening or a removable door to facilitate collecting eggs from the birds nesting inside (Schaefer 1994: 307).

Function

Coarse earthenware is primarily a utilitarian ceramic whose forms correlate directly with their function. The general categories used here to summarize vessel function include storage, food preparation, food service, beverage service, heating, and hygiene. The very production of these ceramics at the Cape points to their essential role as everyday items.

Description

A description of each vessel is provided in order to identify, to the extent possible, details of fabric or glaze, any diagnostic sherds, details of decoration, and any measurable non-rim or non-base sherds. Vessel body color is registered under this category, using Munsell color chart hue and value/chroma specifications and their associated Munsell color names to provide comparative data for future coarse earthenware analyses. These descriptions of body color and glaze are necessarily general and are taken from representative sherds, as the color of a coarse earthenware product's fabric can differ within a single vessel as a result of the vessel's surfaces having varying levels of heat exposure in the kiln. This is also true of the lead glazes, wherein mineral impurities and the firing process may result in glazes appearing differently on different parts of the same vessel.

Measurements

Measurable rim and base fragments were used to estimate rim and base diameters in millimeters using diameter charts.

Total Sherd Count/Provenance

The catalogs for the three sites examined list the total sherd count for each individual vessel identified. Following Spencer-Wood (1987: 332), a single vessel was considered to be represented by distinctive sherds that could not be considered part of any other vessel, differing significantly from others in body color, glaze color, decorative style, decorative color, or shape. Because of the vagaries of the firing process, subtle differences in fabric or glaze color were not considered diagnostic and any sherds that could not be definitively identified as part of one particular vessel were counted as 'miscellaneous' and not included in this analysis.

The number of sherds in each stratigraphic unit is also provided where indicated. The Van der Stel Moat (M90) has five levels reading from the top to bottom, SF, A1, A2, B and C (see Chapter 2) but no earthenwares from the uppermost level, SF, were located in the collections currently housed at the University of Cape Town. In the case of the Old Granary (F2), vessels were identified by stratigraphic Phases 7-1. Sherd provenance for Oudepost I vessels is recorded by horizontal units (Fort, Lodge, DP (Intertidal Dump), and NP (Non Provenanced)) as well as by a series of vertical units, including X, I, and II (see Chapter 2).

Cross mends

Cross mends between sherds from different stratigraphic units are noted in the catalogs in order to help assess depositional and post-depositional processes.

Date Range

A general date range for each vessel is provided. Unlike other ceramic wares with more chronologically diagnostic features, utilitarian coarse earthenware presents a difficulty in assigning specific dates to individual vessels. Although subtle changes in the characteristics of a particular form may be seen over time, the vagaries of production centers and individual potters makes chronological attributions for specific vessel forms difficult, particularly in the circumscribed date ranges of the sites analyzed here. In addition, the Cape's archival record of European potters in VOC service at the Cape suggests that coarse earthenware production and use here may have outlasted that of Europe (see Jordan 2000a, 2000b).

As with the European stoneware collections, the coarse earthenwares are dated using a modified Deventer system wherein quarter centuries are used to bookend the range (e.g., ca.1675 to ca.1750). In general, the date ranges used in the attached catalogs are based on general production dates for the ware or diagnostic decoration in question, as found in established reference works (Hurst et al. 1986; Schaefer 1994) as well as site specific reference works (Baart et al. 1986; Bult 1992; Clevis and Smit 1990). The known occupations of the sites themselves are also used here to provide approximate end dates for each vessel (see Chapter 2).

References

The accompanying catalogs include only references particular to the identification of a specific vessel. General references are included in this chapter and its associated bibliography.

Illustrations

The scale used in all photographs in the accompanying catalogs is calibrated in one centimeter increments. Catalogs and color images of some figures appear in the enclosed CD. The scale used for all artifacts is calibrated in one centimeter increments.

Sites

Castle: Van der Stel Moat (M90)

A total of 206 individual vessels were recovered from four levels of the Castle Moat site (Tables 5.1, 5.2a, b, c). Distributions were made according to MNV counts as defined earlier. This process was facilitated by having a very small number of cross mends (see catalog). Only 20 vessels of the

Table 5.1. Van der Stel Moat (M90): Coarse earthenware vessel type distribution by Level (MNV)

Vessel Type	Level					Total	
	A1	A2	B	C	NP	Nos.	%
European Light-Bodied	2	11	2	1	-	16	7.8
European Red-Bodied	4	6	-	1	1	12	5.8
Niederrhein	1	5	4	-	-	10	4.9
Bergen op Zoom	4	3	2	-	-	9	4.4
Iberian	1	-	-	-	-	1	0.5
Cape Red-Bodied	35	83	26	10	-	154	74.7
Undiagnostic	2	2	-	-	-	4	1.9
Total	49	110	34	12	1	206	100.0

Table 5.2. Van der Stel Moat (M90): Coarse earthenware vessel form distribution by Level (MNV)

a. Food preparation (MNV)

Vessel Form	**Level**					**Total**	
	A1	**A2**	**B**	**C**	**NP**	**Nos.**	**%**
Colander	-	1	-	-	-	1	0.8
Drainer	-	-	1	-	-	1	0.8
Dripping Pan	-	1	-	-	-	1	0.8
Kookkan	**5**	**11**	**6**	-	-	**22**	**17.2**
Kookpot	**7**	**23**	**4**	**2**	-	**36**	**28.1**
Kookkannetje	-	**3**	**1**	-	-	**4**	**3.1**
Lid	11	27	7	4	-	49	38.3
Saucepan	3	4	4	-	-	11	8.6
Skillet	2	-	-	1	-	3	2.3
Total	28	67	22	7	-	128	100.0

b. Food and beverage service (MNV)

Vessel Form	**Level**					**Total**	
	A1	**A2**	**B**	**C**	**NP**	**Nos.**	**%**
Bowl	1	3	1	-	-	5	11.9
Chafing Dish	1	1	-	-	-	2	4.8
Dish	4	5	6	1	-	16	38.1
Pitcher	-	3	-	-	-	3	7.1
Plate	1	2	-	-	-	3	7.1
Porringer	-	5	1	-	1	7	16.7
Saucer	1	1	-	-	-	2	4.8
Spouted Pot	2	1	-	-	-	3	7.1
Lid	1	-	-	-	-	1	2.4
Total	11	24	9	1	1	42	100.0

c. Storage, heating, hygiene, and undiagnostic (MNV)

Vessel Form	**Level**					**Total**	
	A1	**A2**	**B**	**C**	**NP**	**Nos.**	**%**
Brazier	2	2	1	1	-	6	16.7
Chamber Pot?	-	1	-	-	-	1	2.8
Crucible	-	-	-	1	-	1	2.8
Olla	1	-	-	-	-	1	2.8
Pear Pot	1	1	-	-	-	2	5.5
Salve Pot	-	2	-	-	-	2	5.5
Starling Pot?	-	1	-	-	-	1	2.8
Storage Pot	5	9	1	1	-	16	44.4
Undiagnostic	1	2	1	2	-	6	16.7
Total	10	18	3	5	-	36	100.0

206 in the assemblage had cross mends between levels, and the most typical mend was seen in nine vessels whose sherds mended between adjacent levels A1 and A2 (see catalog). If the Moat were full of water at the time, most of the utilitarian vessels were probably broken prior to dumping, during regular use and high heat rather than in the course of post-depositional disturbance.

The distribution of vessels in Table 5.1 shows that Level A2 contains the greatest density of artifacts in the Castle Moat, constituting 53% (n=110) of the total coarse earthenware collection. One vessel (NP) is considered non-provenanced as a result of originating in disturbed contexts.

European Products

European imports number 48 (23%) and occur predominantly in smaller forms like small tripod pipkins or *kookkannetjen*, small pots, and bowls or dishes (Table 5.1). These can be divided into three general types: white- or light-bodied wares with clear or colored glazes, light red-bodied vessels with trailed or engobe white clay slip decoration, and sandy orange Bergen op Zoom products. Sixteen light-firing vessels were found. Three white-bodied European *kookkannetjen* (CEW 2, 8, and 30), used for individual food or beverage service, are present in the collection (Figure 5.3). Other white-bodied vessels include two yellow-glazed bowls (CEW 9, 11) and a yellow-glazed *testje* or drainer (CEW 3), all typical of Frechen products (Gaimster 1988: 159, 164; Jan Baart and Wiard Krook 1995, pers. comm.). One white-bodied dish also carries what appears to be a Neiderrhein-style incised floral and slip decoration (CEW 4; counted in Table 5.1 under 'Neiderrhein'). A white-bodied baluster pot (CEW 1) is highly distinctive, glazed on the interior with bright green and marked with an impressed seal consisting of a crowned globe with a ribbon bearing 'R' 'M' 'O' and other indecipherable letters, all enclosed in a border of laurels (Figure 5.4). There are only two light-bodied tripod cooking pots in the collection (CEW 6, 31), as compared to the vast number of locally produced cooking vessels (see the following section). Other light-bodied vessels include two lids (CEW 34, 107), one pear pot (CEW 12, Figure 5.5), one possible chamber pot (CEW 14), and two unidentified forms (CEW 196, 200).

Light red-bodied vessels with slip decoration are also poorly represented. Nineteen red-bodied vessels (9% of the total MNV) are slip decorated with either simple white slip engobe or more complex Lower Rhine decorative schemes. The white slip engobe is one of the few elaborations seen on small Dutch and German tripod vessels (Schaefer 1994: 95). The eight slip engobed vessels include one *kookkannetje* (CEW 5, Figure 5.6), a saucer (CEW 22), two skillets (CEW 29, 35), and three dishes (CEW 23, 27, 28). The ten remaining slip decorated vessels (including CEW 4) carry typical Niederrhein decoration consisting of either a marbled red and white slip surface or a background engobe with trailed red slip and green copper oxide splotches (Jan Baart and Wiard Krook 1995, pers. comm.). These Lower Rhine vessels include four dishes (CEW 19, 20, 21, 33), one saucer (CEW 26), and four porringers (CEW 15, 17, 25a, 25b; see Figures 5.7, 5.8). Two additional vessels, a chafing dish or *komfoor* (CEW 36; Figure 5.9), and one porringer (CEW 18) also carry trailed white slip elements reminiscent of Lower Rhine slip decoration.

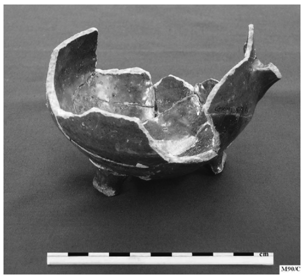

Figure 5.3. Coarse Earthenware from the Castle Moat (M90) excavation, showing European white-bodied *kookkannetje* (CEW 2). Scale in cm. (Photo C. Schrire)

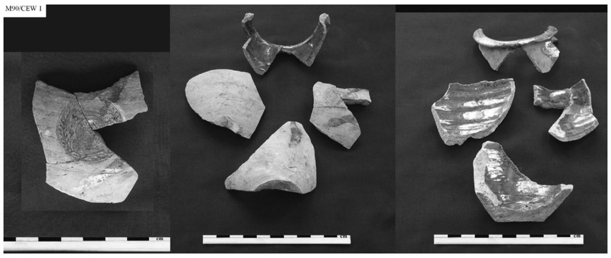

Figure 5.4. Coarse Earthenware from the Castle Moat (M90) excavation, showing European white-bodied baluster pot (CEW 1). Scale in cm. (Photo C. Schrire)

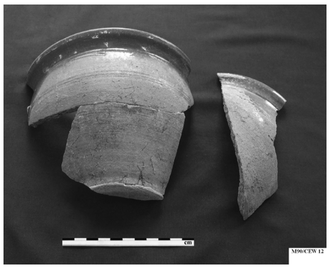

Figure 5.5. Coarse Earthenware from the Castle Moat (M90) excavation, showing European light-bodied pear pot (CEW 12). Scale in cm. (Photo C. Schrire)

Twelve additional vessels (6%) also appear to have foreign fabrics. Nine have the clearly identifiable Bergen op Zoom fabric, including a thin brazier (CEW 24), two lids (CEW 32, 197), three saucepans with classic Bergen angled rims (CEW 74, 89, 90), one spouted pot (CEW 198), one *kookpot* (CEW 177), and one pitcher (CEW 13). One Iberian *olla* (CEW 60), a large transport and storage jar, was also present. Two undecorated red-bodied vessels, a brazier (CEW 66) and a spouted pot (CEW 208), also appear to have fabrics unlike those produced from Cape raw materials.

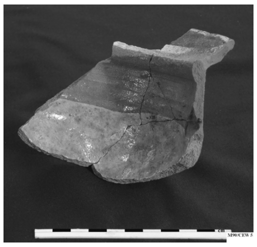

Figure 5.6. Coarse Earthenware from the Castle Moat (M90) excavation, showing European reddish yellow-bodied *kookkannetje* with slip engobe (CEW 5). Scale in cm. (Photo C. Schrire)

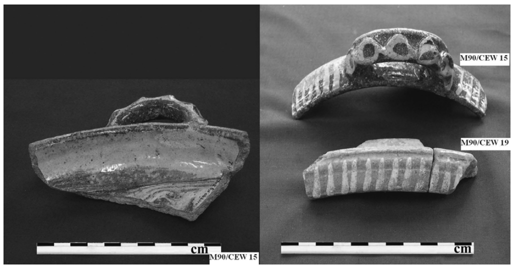

Figure 5.7. Coarse Earthenware from the Castle Moat (M90) excavation, showing European red-bodied porringer (CEW 15) and dish (CEW 19) with Niederrhein decorative schemes. Scale in cm. (Photo C. Schrire)

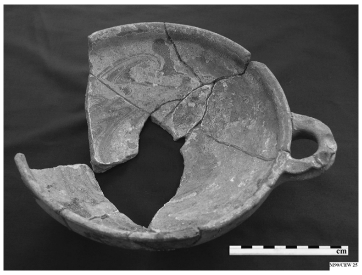

Figure 5.8. Coarse Earthenware from the Castle Moat (M90) excavation, showing European red-bodied porringer (CEW 25a) with Niederrhein decorative scheme. Scale in cm. (Photo C. Schrire)

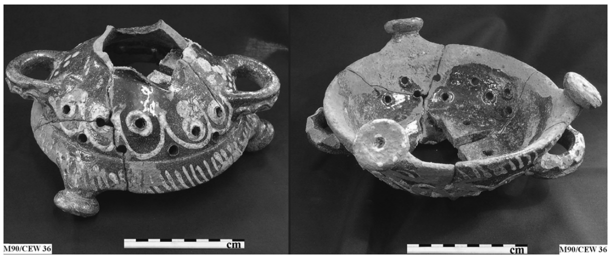

Figure 5.9. Coarse Earthenware from the Castle Moat (M90) excavation, showing European red-bodied chafing dish or *komfoor* (CEW 36). Scale in cm. (Photo C. Schrire).

Cape Products

The remaining 154 vessels (75%) are coarse, red-bodied Cape products with clear glazes that sometimes appear green or brown as a result of possibly intentionally added mineral impurities. Because of the large number of vessels and their lack of individually distinctive decoration, they are addressed in this section in functional groups.

Food preparation vessels dominate here, numbering 110 (71%) of the vessels made at the Cape. Smaller food preparation vessels include one colander (CEW 98), one dripping pan (CEW 87), one skillet (CEW 118), and seven saucepans (CEW 56, 64, 88, 104, 105 106, 192; Figure 5.10). Tripod cooking pots and lids in a variety of sizes predominate. The site yielded 55 tripod cooking pots of both the globular *kookkan* (n=21) (Figure 5.11), and cauldron-like *kookpot* (n=34) varieties (Figure 5.12), ranging in rim diameter between 150 and 330 mm. Accompanying these are 45 Cape cooking pot lids, measuring between 90 and 410 mm in rim diameter though falling predominantly between 250 and 300 mm (Figure 5.13). These include a variety of domed, vertical and triangular rim edges with generally one centered or two opposite *worst*-form handles (see Jordan 2000a: 102-103). Interestingly, one domed form in the Cape fabric appears very similar to lids excavated in Delft (see CEW 42, 43, 94; Figure 5.14). These are described as having "…a handle on top, or sometimes two handles on the collar-shaped broad rim.… Strangely these lids have hardly ever been found outside the area of Delft, and yet they are so very common in the 17th century pottery collections of Delft." (Bult and Nooijen 1992: 87).

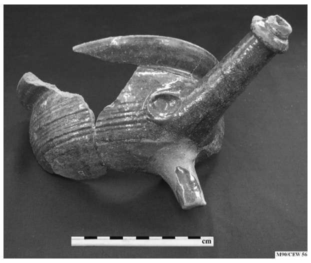

Figure 5.10. Coarse Earthenware from the Castle Moat (M90) excavation, showing Cape red-bodied saucepan (CEW 56) with clear glaze. Scale in cm. (Photo C. Schrire)

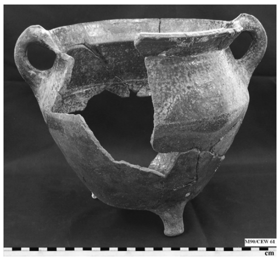

Figure 5.11. Coarse Earthenware from the Castle Moat (M90) excavation, showing Cape red-bodied tripod *kookkan* (CEW 61) with clear glaze. Scale in cm. (Photo C. Schrire)

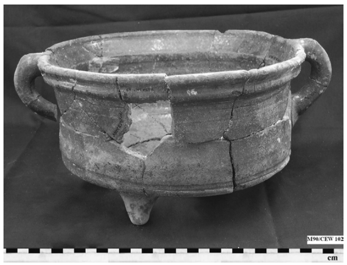

Figure 5.12. Coarse Earthenware from the Castle Moat (M90) excavation, showing Cape red-bodied, cauldron-like *kookpot* (CEW 102) with clear glaze. Scale in cm. (Photo C. Schrire)

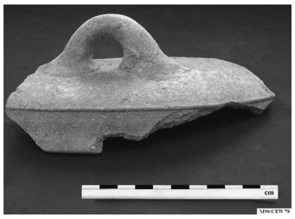

Figure 5.13. Coarse Earthenware from the Castle Moat (M90) excavation, showing Cape red-bodied lid (CEW 78) with clear glaze. Scale in cm. (Photo C. Schrire)

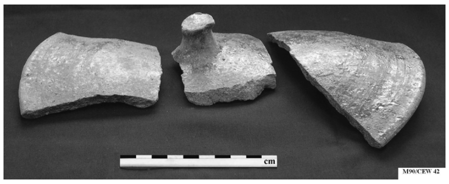

Figure 5.14. Coarse Earthenware from the Castle Moat (M90) excavation, showing Cape red-bodied, domed lid (CEW 42) similar to those excavated in Delft. Scale in cm. (Photo C. Schrire)

In contrast, food and beverage service vessels represent only around 8% (n=16) of the vessels made at the Cape. These span the range of service vessel forms, including one bowl (CEW 10), eight dishes (CEW 51a, 51b, 53, 127, 167, 169, 173, 207), two pitchers (CEW 103, 166; Figure 5.15), one possible tea service lid (CEW 142), three plates (CEW 45, 52, 85), and one porringer (CEW 86; Figure 5.16).

Similarly represented are storage vessels, which comprise 9% (n=19) of the Moat assemblage. Fifteen storage pots of various sizes (CEW 117, 133, 139, 144, 146, 151-157, 165, 168, 199) appear to have been produced at the Cape. Three of these (CEW 152, 153, 154; Figure 5.17) may represent ashpots for the deposition of hearth coals and ashes. In addition, there are two salve pots (CEW 143, 145; Figure 5.18), one pear pot (CEW 101; Figure 5.19), and a possible starling pot, a flask-shaped vessel for holding birds (CEW 57), all produced at the Cape (Figure 5.20). The salve pots, or bottles, are particularly interesting as they look like typical European tin-glazed albarello forms, and therefore probably reflect the efforts of the VOC potters to replicate these familiar forms using local raw material.

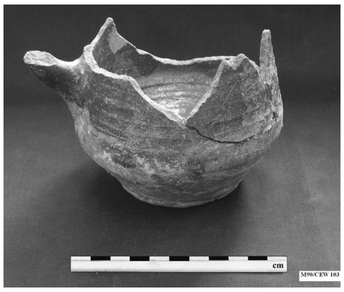

Figure 5.15. Coarse Earthenware from the Castle Moat (M90) excavation, showing Cape red-bodied pitcher (CEW 103) with clear glaze. Scale in cm. (Photo C. Schrire)

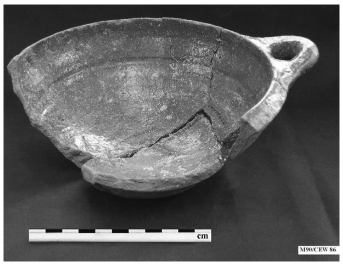

Figure 5.16. Coarse Earthenware from the Castle Moat (M90) excavation, showing Cape red-bodied porringer (CEW 86) with clear glaze. Scale in cm. (Photo C. Schrire)

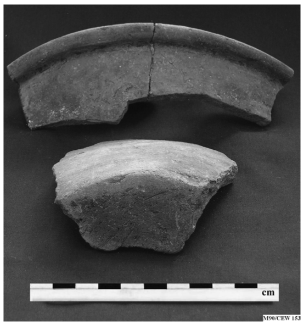

Figure 5.17. Coarse Earthenware from the Castle Moat (M90) excavation, showing Cape red-bodied storage pot (CEW 153), possibly used as an ashpot for deposition of coal and ashes. Scale in cm. (Photo C. Schrire)

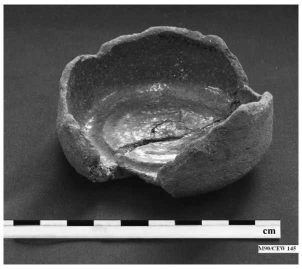

Figure 5.18. Coarse Earthenware from the Castle Moat (M90) excavation, showing Cape red-bodied salve pot (CEW 145) with clear glaze. Scale in cm. (Photo C. Schrire)

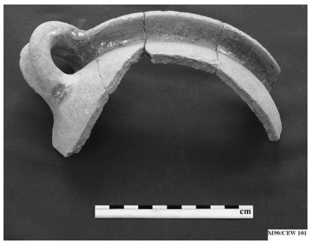

Figure 5.19. Coarse Earthenware from the Castle Moat (M90) excavation, showing Cape red-bodied pear pot (CEW 101) with clear glaze. Scale in cm. (Photo C. Schrire)

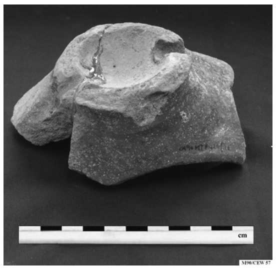

Figure 5.20. Coarse Earthenware from the Castle Moat (M90) excavation, showing Cape red-bodied possible starling pot (CEW 57) with clear glaze. Scale in cm. (Photo C. Schrire)

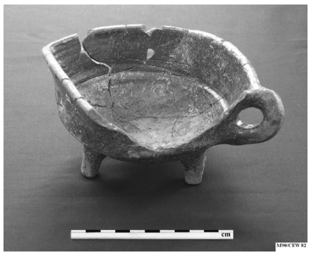

Figure 5.21. Coarse Earthenware from the Castle Moat (M90) excavation, showing Cape red-bodied brazier (CEW 82) with clear glaze. Scale in cm. (Photo C. Schrire)

A small component of the local coarse earthenware excavated at the Cape consists of vessels used for smoking, heating, and lighting. Four braziers for personal heating (CEW 63, 65, 82, 193) were identified (Figure 5.21). Also included in this count is one crucible (CEW 195). Four additional undiagnostic lead glazed vessels with typical Cape fabric were recovered (CEW 184, 202, 203, 204).

'Euro/Cape' Unprovenanced Products

Four vessels had fabrics of indeterminate origin. These consist of a saucepan (CEW 80), two bowls (CEW 149, 171), and a chafing dish (CEW 99).

Discussion

The Moat collection is comprised of mainly of local Cape wares, with a smaller component of imported European ceramics. Forty eight (23%) of these were determined to be imported European products on the basis of their body color and texture and/or the presence of slip decoration. In contrast, 154 (75%) vessels are known or suspected local Cape products. Four (2%) are of indeterminate origin (Table 5.1). With regard to function, the vast majority of the collection (n=128, 62%) consists of food preparation vessels (Table 5.2a), including one colander, one small drainer, one dripping pan, 11 saucepans, three skillets, 49 lids, four tripod *kookkannetjen*, and 58 tripod cooking pots (both cauldron-like *kookpotten* and the more globular *kookkannen*). Forty-two vessels (20% of the collection) reflect food and beverage service (Table 5.2b) and consist of five bowls, two chafing dishes, 16 large dishes, three pitchers, three plates, seven porringers, and two saucers. Three spouted pots and a small lid may also reflect the service of hot beverages like tea. Twenty-two (11%) of the vessels functioned for storage (Table 5.2c), including an Iberian *olla*, two pear pots, two salve pots, and 16 storage pots of various sizes and qualities. A possible starling pot is also considered food storage. Eight vessels reflect smoking, heating, lighting, and other functions. Six vessels are undiagnostic. (Table 5.2c)

The collection is dated broadly between the mid-17th and mid-18th centuries. Deposition may have been rapid with little evidence of significant post-depositional disturbance. The majority of the vessels were used in food preparation, with the greatest diversity visible in the richest, middle levels, A1 and A2 (Table 5.1).

Castle: Old Granary (F2)

The F2 coarse earthenware collection contains a total of 43 vessels.[4] Like the Van der Stel Moat, the collection is best analyzed using MNV. Table 5.3 shows that Phase 7 yielded the majority of the finds vessels (n=20, 47%), and the cross mends suggest that post-depositional disturbance was minimal, with only two mends linking the lowest Phases 1 and 3 (see catalog).

Table 5.3. Old Granary (F2): Coarse earthenware vessel type distribution by Phase (MNV)

Vessel Type	Phase					Total	
	7	5	4	3	1	Nos.	%
European Light-Bodied	8	3	3	1	2	17	39.5
European Red-Bodied	2	1	1	1	4	9	20.9
Niederrhein	4	2	-	-	-	6	14.0
Cape Red-Bodied	5	1	-	2	-	8	18.6
Undiagnostic	1	-	-	-	2	3	7.0
Total	20	7	4	4	8	43	100.0

European Products

Unlike the Moat, imported European earthenwares predominate with an MNV of 32 forming around 74% of the total collection. They include light-bodied vessels, slip-decorated redwares, and non-Cape redware fabrics and are spread over the food preparation, food service, and combined preparation/service categories. Six Niederrhein vessels, consisting of four dishes, one plate, and one unidentified hollow ware form, are of note (CEW 20, 23, 27, 28, 29 and 32; Figure 5.22). Interestingly, unlike the Moat, all of the five *kookkannetjen* (Figure 5.23) in this assemblage are of European origin (Tables 5.3, 5.4).

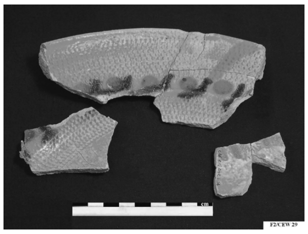

Figure 5.22. Coarse Earthenware from the Old Granary (F2) excavation, showing European Niederrhein light-bodied dish (CEW 29). Scale in cm. (Photo C. Schrire)

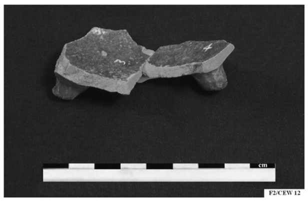

Figure 5.23. Coarse Earthenware from the Old Granary (F2) excavation, showing European light-bodied *kookkannetje* (CEW 12). Scale in cm. (Photo C. Schrire)

Cape Products

There are only eight (19%) locally made Cape products that reflect the basic utilitarian function of most coarse earthenware. These heavily quartzose, red-bodied vessels include a single plate (CEW 11), two storage pots CEW 14, 36), two *kookpotten* (CEW 16, 37), two lids (CEW 39, 40), and one unidentified spouted vessel (CEW 43) (Tables 5.3, 5.4).

'Euro/Cape' Unprovenanced Products

There are three vessels of unknown provenance, including a bowl (CEW 38), a *kookpot* (CEW 1), and one unidentified form (CEW 4; Table 5.3).

Discussion

Unlike the Moat, the F2 collection is comprised mainly of imported products. Like other coarse earthenware assemblages examined, items relating to food preparation and service dominate the assemblage, with 16 vessels (37%) in the food preparation category and 11 (26%) in food service, plus five small *kookkannetjen* (12%) that may represent both food preparation and service. Food preparation is manifested in one colander, three lids, one saucepan, and 11 *kookpotten*. Food service vessels consist of two bowls, one chafing dish, five dishes, and three plates. One pitcher represents beverage service. Two storage vessels in the form of unidentified pots and seven unidentified forms were also retrieved (Table 5.4).

Table 5.4. Old Granary (F2): Coarse earthenware vessel form distribution by Phase (MNV)

Vessel Form	Phase					Total	
	7	5	4	3	1	Nos.	%
Bowl	2	-	-	-	-	2	4.7
Chafing Dish	-	1	-	-	-	1	2.3
Colander	1	-	-	-	-	1	2.3
Dish	4	1	-	-	-	5	11.6
Kookkannetje	-	1	1	-	3	5	11.6
Kookpot	6	1	2	1	1	11	25.6
Lid	3	-	-	-	-	3	7.0
Pitcher	1	-	-	-	-	1	2.3
Plate	-	2	-	1	-	3	7.0
Pot	1	-	-	1	-	2	4.7
Saucepan	-	-	-	-	1	1	2.3
Spouted	1	-	-	-	-	1	2.3
Undiagnostic	1	1	1	1	3	7	16.3
Total	20	7	4	4	8	43	100.0

The Old Granary has been interpreted as a slave or garrison occupation site (see Hall 1992: 389-390; Yates et al. n.d.). This appears unsubstantiated by stratigraphic, site formation, and documentary evidence (see Chapter 2). Given the strong argument made that this is a secondary fill and not a primary living site, it would be imprudent to attempt to interpret the use of these vessels here, *in situ*, beyond a general recognition of their intended function (see Chapter 3). Where the age of the deposit is concerned, as with the European stoneware from this site, the decorated Niederrhein vessels do appear to support the pipe stem analysis interpretation that the upper phases of the F2 Granary date to the early 18th century (Yates et al. n.d.: 5, 16).

Oudepost I (OPI)

Since the coarse earthenware collection from Oudepost I was first examined over ten years ago, new finds have been added to the collection, increasing the MNV from its original count of 58 (Jordan 2000a: 154) to its current count of 65. The complete assemblage is discussed in the sections that follow.

Oudepost I differs from the Castle sites in two important ways. First, some earthenwares reached the site as provisions sent from the Cape—as seen in "2 earthenware dishes" that were consigned there in 1673 (ARA 4008: 453)—but others probably came in as trade goods, food containers, or gifts off passing ships whose careening offshore may have deposited broken vessels into the intertidal zone DP (see Chapters 2, 3). Second, the site is renowned for its high degree of disturbance and secondary deposition by its occupants, dune moles, and treasure hunters (Schrire 1995: 107-10; Schrire et al. 1990, 1993). This is reflected in the catalog of finds, where the sherds from a single MNV are often distributed among multiple horizontal and vertical units. Since such an MNV cannot be confidently located in space or time, we have used both sherd and MNVs count to analyze the distribution of the finds.

European Products

The Oudepost I collection features the same basic range of imported earthenwares found at the other Cape sites (Table 5.5). It includes white- and buff-firing vessels with and without decoration, slip-decorated and Niederrhein redwares, and vessels made of patently imported fabrics like that of Bergen op Zoom (Table 5.5). The 12 light-firing vessels (18% of the total collection) include three pink-bodied lids (CEW 9, 27, 28), one pink-bodied porringer (CEW 10) and one pink-bodied *kookkannetje* (CEW 29) all with clear lead glazes. Two of the lids measuring 130 mm in diameter belong to smaller, *kookkannetje* or saucepan-sized vessels. Five white-bodied vessels—a bowl (CEW 16), a spouted pot (CEW 76), a *kookkannetje* (CEW 17), and two unidentified forms (CEW 61, 62)—have yellow lead glazes in the Frechen style. One additional white-bodied skillet with a green lead glaze (CEW 6), also typical of Frechen products, has distinctive white clay shavings decorating its exterior surface. A pink-bodied *kookkannetje* carries copper and red slip exterior decoration (CEW 29).

Of note among the nine European redware vessels (14%) is one dish (CEW 7h) and one *kookkannetje* (CEW 4) with remnants of a slip engobe (Figure 5.24). The remaining seven have lead glazes and consist of a colander (CEW 12), two saucepans (CEW 25, 26), two *kookkannetjen* (CEW 32, 34), one dish (CEW 19), and one lid (CEW 20).

Ten slip decorated Niederrhein vessels are also present (CEW 7a-g, 58, 64, 70; Figure 5.25). They are typical of these decorated wares, and consist of eight dishes and two bowls, in a variety of sgrafitto, rouletting, copper, red slip, and engobe combinations.

Eight vessels (12%) have the typical Bergen op Zoom fabric with clear glazes. These include two dishes (CEW 8, 72), one bowl (CEW 3), one *kookkannetje* (CEW 71), three saucepans (CEW 1/2, 24, 59; Figure 5.26), and a single cylindrical bottle base (CEW 73). Finally, two unglazed bowls with a reddish-brown, heavily micaceous fabric (CEW 36, 37) are suspected to be products from Merida. Unglazed on both the interior and exterior, they are reminiscent of the ware discussed by Marken in his description of pottery found on Spanish shipwrecks (1994: 191-192, Fig. 6.11).

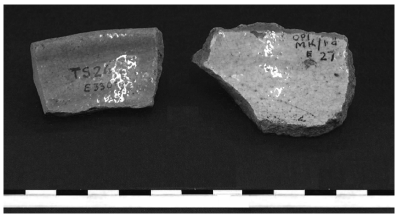

Figure 5.24. Coarse Earthenware from the Oudepost I (OPI) excavation, showing European redware *kookkannetje* (CEW 4) with remnants of a slip engobe. Scale in cm. (Photo C. Schrire)

Table 5.5. Oudepost I (OPI): Coarse earthenware vessel type distribution by Unit and Level (Sherds)

Vessel Type	Unit (Sherds)						MNV		Level (Sherds)				
	Fort	Lodge	DP	NP	Total				X	I	II	Total	
					Nos.	%	Nos.	%				Nos.	%
Euro. Light-Bodied	6	112	9	18	145	27.3	12	18.5	-	109	9	118	31.6
Euro. Red-Bodied	3	36	5	12	56	10.5	9	13.8	3	23	13	39	10.5
Niederrhein	4	9	27	24	64	12.1	10	15.4	1	6	6	13	3.5
Bergen op Zoom	-	98	16	16	130	24.5	8	12.3	-	65	33	98	26.3
Merida	4	1	-	-	5	0.9	2	3.1	-	5	-	5	1.3
Cape	49	51	22	9	131	24.7	24	36.9	42	27	31	100	26.8
Total	66	307	79	79	531	100.0	65	100.0	46	235	92	373	100.0

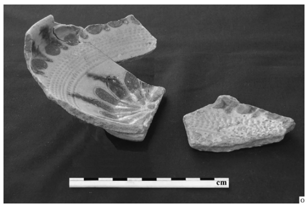

Figure 5.25. Coarse Earthenware from the Oudepost I (OPI) excavation, showing European slip-decorated Niederrhein bowl (CEW 7g) with remnants of a slip engobe. Scale in cm. (Photo C. Schrire)

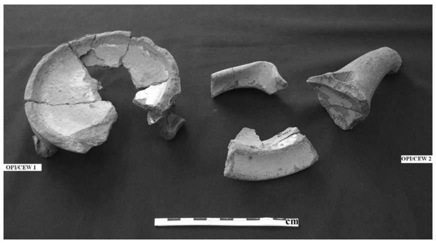

Figure 5.26. Coarse Earthenware from the Oudepost I (OPI) excavation, showing European light-bodied saucepan (CEW 1/2). Scale in cm. (Photo C. Schrire)

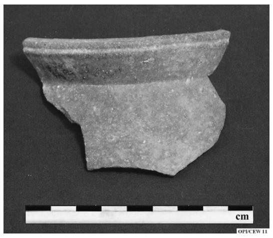

Figure 5.29. Coarse Earthenware from the Oudepost I (OPI) excavation, showing Cape red-bodied *kookkannetje* (CEW 11a) with clear glaze. Scale in cm. (Photo C. Schrire)

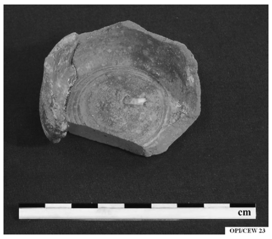

Figure 5.30. Coarse Earthenware from the Oudepost I (OPI) excavation, showing Cape red-bodied salve pot (CEW 23) with clear glaze. Scale in cm. (Photo C. Schrire)

Cape Products

The suspected Cape products are far less common here than they were in the Moat, where they constitute 75% of the MNV. At Oudepost there are 131 sherds, comprising an MNV of 24 and reflecting approximately 25% of the total sherd count and 37% of the total MNV (Table 5.5). Six Cape products are classified as food service vessels, including two bowls (CEW 38/39, 67) and four dishes (CEW 14, 60, 65, 68). A possible pitcher (CEW 30) represents beverage service. Nine food preparation vessels include two colanders (CEW 57, 66; Figure 5.27), two *kookpotten* (CEW 13, 69), four lids (CEW 5, 31, 33, 35; Figure 5.28), and one saucepan (CEW 22). Other vessels classified as food preparation/service include five *kookkannetjen* (CEW 11a, 11b, 15, 21, 63; Figure 5.29). Two salve pots (CEW 23, 74; Figure 5.30) represent storage, and three vessels (CEW 55, 61, 62) are undiagnostic.

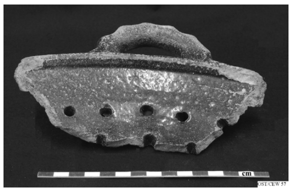

Figure 5.27. Coarse Earthenware from the Oudepost I (OPI) excavation, showing Cape red-bodied colander (CEW 57) with clear glaze. Scale in cm. (Photo C. Schrire)

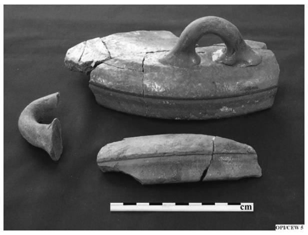

Figure 5.28. Coarse Earthenware from the Oudepost I (OPI) excavation, showing Cape red-bodied lid (CEW 5) with clear glaze. Scale in cm. (Photo C. Schrire)

Discussion

The coarse earthenwares from Oudepost came there as provisions from the main Cape settlement and as gifts and garbage off of passing ships. Owing to the post-depositional scattering of artifacts here and the fact that the fragments from single MNV often emanate from different areas and levels, some analyses have been done using sherd counts (Tables 5.5, 5.6, 5.7). Starting with vessel type, relative proportions show that they fall midway between the Moat and F2, with an MNV count of 41 (63%) for known or suspected European imports and only 24 (37%) for local Cape wares (Table 5.5). In keeping with the previous two sites, the majority of the vessels are related to food preparation and service (Table 5.6). Usage is shown in Table 5.6 and forms in Table 5.7. While food preparation vessels are predominant in the sherd count, food service vessels dominate the MNV count. Twenty vessels (31%) relate to food preparation, including three colanders, two cauldron-like *kookpotten*, eight lids, six saucepans, and one skillet (Table 5.7). Food service vessels include eight bowls, one porringer, 15 dishes, and 12 small *kookkannetjen*. The exterior charring on one of these suggests that it served as both a food service and food preparation vessel. One possible pitcher (CEW 30) and one spouted pot (CEW 76) represent the beverage service portion of the assemblage. Three of the vessels reflect storage, including two salve pots (CEW 23, 74) and one bottle or flask (CEW 73). Three additional unidentified vessels (CEW 55, 61, 62) complete the assemblage.

Table 5.6. Oudepost I (OPI): Coarse earthenware vessel function distribution by Unit and Level (Sherds)

Vessel Function	Unit (Sherds)						MNV		Level (Sherds)				
	Fort	Lodge	DP	NP	Total				X	I	II	Total	
					Nos.	%	Nos.	%				Nos.	%
Food Prep.	42	187	14	18	261	49.2	20	30.8	37	175	17	229	61.4
Food Service	13	73	46	49	181	34.1	26	40.0	5	32	49	86	23.1
Food Prep. and Service	11	44	16	9	80	15.1	13	20.0	4	28	23	55	14.7
Storage	-	-	1	3	4	0.7	3	4.6	-	-	-	-	-
Undiagnostic	-	3	2	-	5	0.9	3	4.6	-	-	3	3	0.8
Total	66	307	79	79	531	100.0	65	100.0	46	235	92	373	100.0

Table 5.7. Oudepost I (OPI): Coarse earthenware vessel form distribution by Unit and Level (Sherds)

Vessel Form	Unit (Sherds)						MNV		Level (Sherds)				
	Fort	Lodge	DP	NP	Total				X	I	II	Total	
					Nos.	%	Nos.	%				Nos.	%
Bottle	-	-	-	1	1	0.2	1	1.5	-	-	-	-	-
Bowl	7	49	7	13	76	14.3	8	12.3	1	20	35	56	15.0
Colander	-	2	3	1	6	1.1	3	4.6	-	1	1	2	0.5
Dish	5	24	37	36	102	19.2	15	23.1	3	12	14	29	7.8
Dish / Plate	-	-	1	-	1	0.2	1	1.5	-	-	-	-	-
Kookkannetje	7	44	16	8	75	14.1	12	18.5	4	24	23	51	13.7
Kookpot	-	5	1	-	6	1.1	2	3.1	-	2	3	5	1.3
Lid	41	6	2	6	55	10.4	8	12.3	37	10	-	47	12.6
Pitcher	1	-	-	-	1	0.2	1	1.5	1	-	-	1	0.3
Porringer	4	-	-	1	5	0.9	1	1.5	-	4	-	4	1.1
Salve pot	-	-	1	2	3	0.6	2	3.1	-	-	-	-	-
Saucepan	-	63	8	8	79	14.9	6	9.2	-	58	5	63	16.9
Skillet	1	111	-	3	115	21.7	1	1.5	-	104	8	112	30.0
Spouted pot	-	-	1	-	1	0.2	1	1.5	-	-	-	-	-
Undiagnostic	-	3	2	-	5	0.9	3	4.6	-	-	3	3	0.8
Total	66	307	79	79	531	100.0	65	99.8	46	235	92	373	100.0

Despite the apparent post-depositional disturbance at the site, only four cross mends were found in the OPI coarse earthenware assemblage. All are between lodge loci, with two linking the lodge exterior and its interior rooms and all four linking the lodge's levels I and II. The majority of coarse earthenware sherds (307 sherds, 58%) in this site were recovered from the lodge as opposed to only 66 sherds, (12%) from the fort. The remaining 158 sherds were split evenly between the shoreline dumps (DP) and non provenanced (NP) contexts (see Tables 5.5, 5.6, 5.7). The vertical distribution of the sherds shows that the majority (63%) come from the middle level I (Table 5.5). Despite the apparent post-depositional disturbance at the site, only four cross mends were found in the OPI coarse earthenware assemblage.

Table 5.7 shows a predominance of food preparation vessels (*kookkannetjen*, *kookpotten*, saucepans and a skillet) in the lodge, which is partly offset by the presence of almost all the lids in the fort. We are unable to speculate about the fort, but the presence of hearths and fire places excavated in its sandy floor together with the presence of a variety of food preparation sherds there might confirm its use as a place where men cooked their food (Schrire et al. 1993: 24). Where dates are concerned, a wide range between approximately 1650 and 1750 is postulated. Efforts to refine this are hampered by the post-depositional stratigraphic disturbance at Oudepost, which renders chronological implications of diagnostic types like Niederrhein vessels of little utility here, except to confirm that there was occupation at this site during the first quarter of the 18th century.

Interpretations

The seemingly complex intersite variation seen in these three coarse earthenware collections at first appears striking, but can be contextualized spatially, temporally, and functionally to reveal the various behavioral and depositional dynamics that created the assemblages under consideration. Both the Oudepost I and F2 collections were deposited during the last quarter of the 17th century and into the first quarter of the 18th century. These two sites overlap with the Castle Moat, where deposits began to accumulate at the end of the 17th century and continued into and possibly beyond the first third of the 18th century.

The Castle Moat represents both natural deposition and fill. The earliest layers (B and C) are thin strata with low coarse earthenware densities, while the upper layers (A1 and A2) are thick, artifact-rich layers of fill, which may have emanated from the garrison kitchen in the adjacent bastion, from a shambles on the beach (Chapter 3), from construction in and around the Castle, and from the mid-18th century walkway that was built over this portion of the moat. The F2 collection, in contrast, includes secondary fills from Castle construction as well as garbage that accumulated during everyday use of the Castle. Oudepost I represents the only true occupation site examined, however, with material excavated in and adjacent to the lodge and fort structures, as well as in intentional shoreline dumps.

Where vessel type and origins are concerned, all three sites contain both European and locally made vessels. A striking trend is seen in the relative popularity of imported vessels in the older sites (F2 and Oudepost I) followed by an increasing amount of Cape vessels in the later Castle Moat (M90) (Table 5.8). However, this might not represent an overall decrease in imported wares at the Cape because the sites concerned are so different: the Granary F2 site is a secondary fill from unspecified sources and many artifacts at Oudepost might have come there from passing ships. Where function is concerned, the Moat series once again stands out from the other two on the basis of its large proportion of locally produced food preparation vessels, specifically large tripod cooking pots and lids. This underscores the different characters of the sites, where many Moat residues emanated from kitchens that were cooking for a large garrison, as opposed the wares at Oudepost, where a tiny garrison was emplaced and where people may have cooked for themselves (Table 5.9).

Table 5.8. Coarse earthenware vessel type distribution in all sites (MNV)

Vessel Type	**Site**					
	Moat (M90)		**Old Granary (F2)**		**Oudepost I (OPI)**	
	Nos.	**%**	**Nos.**	**%**	**Nos.**	**%**
European	48	23.3	32	74.4	41	63.0
Cape	154	74.8	8	18.6	24	37.0
Unprovenanced	4	1.9	3	7.0	-	-
Total	206	100.0	43	100.0	65	100.0

Table 5.9. Coarse earthenware vessel function distribution in all sites (MNV)

Vessel Function	**Site**					
	Moat (M90)		**Old Granary (F2)**		**Oudepost I (OPI)**	
	Nos.	**%**	**Nos.**	**%**	**Nos.**	**%**
Food Preparation	128	62.1	16	37.2	20	30.8
Food Service	42	20.4	11	25.6	26	40.0
Food Preparation/ Service	-	-	5	11.6	13	20.0
Other	30	14.6	2	4.7	3	4.6
Undiagnostic	6	2.9	9	20.9	3	4.6
Total	206	100.0	43	100.0	65	100.0

There is, then, no single explanation for the variations observed between of the coarse earthenware assemblages at the examined sites. Instead, a number of factors—site dates, geographical distance from the Cape kilns, site-related activity, and individual site depositional processes—probably combined to produce the particular coarse earthenware signature of each site.

Whatever their differences, all three collections speak to the impact of the colonial society on the foodways of the Cape settlement. Unlike the 17th and 18th century northwestern European diet that was "…so heavily biased towards dairy foods that there was little chance of falling behind in lactic and calcium intake" (Schama 1988: 525), the Cape settlement focused more on mutton and far less on cattle, milk, and cheese (Elphick 1977: 154). The cardinal goal of livestock production at the Cape was not dairying but the supply of fresh meat to visiting VOC vessels as well as, secondarily, to VOC servants and the settlement at large (Heinrich and Schrire 2011; Chapter 3). Although dairying might have used copper pans (Janowitz 1993: 20; Baart et al. 1986), earthenware milk pans are absent from our collection, which has a predominance of tripod cooking pots for pot-roasting and stewing, signifying a mutton diet at the Cape sites. Clearly, the emphasis on livestock, predominantly mutton, as a dietary mainstay at the Cape differed from the typical foodways of northwest European. In contrast to the dairy-rich diets with occasional vegetables consumed in northwest Europe in the 18th century, the Cape settlement's population of nearly 10,000 people were heavy meat eaters who consumed an average of one pound of meat per day *per capita* by 1790 (van Duin and Ross 1987: 68-69). Combined with an influx of new staples like rice and spices from the East, as well as the influence of Asian and Indonesian slaves with their culinary skills, the Cape settlement's cuisine blended ingredients, cultural traditions, and peoples as one of the many strands of creolization occurring at the Cape. While the locally produced coarse earthenware in its familiar European forms helped perpetuate the visual image of European domestic traditions, the contents of these pots reflect the subtle yet powerful changes in culture, tradition, and taste at the tables of the Cape settlement.

As in previous studies of these collections, no South African versions of the technically and stylistically syncretic Colonowares, earthenwares excavated from seventeenth- and eighteenth-century contexts in the eastern United States and the Caribbean and most likely produced by enslaved and marginalized populations, were found in the assemblages under study. Rather, it is the European-style local coarse earthenware itself that speaks to the cognitive context of ceramic production (see De Course 1998). A result of the importation of European potters by the Cape's VOC officials for nearly two centuries, it is the shaping of local clays into familiar European forms by European potters that represents a mundane yet pervasive material manifestation of contact and social dynamics in Dutch colonial South Africa (see Jordan 2000a, Jordan and Schrire 2002). Forms from the homeland, be it West Africa or Western Europe, rendered to the best extent possible in local clays, reflect the same phenomenon of recreating the familiar in new worlds, and are indicative of how the colonial context is one of simultaneous remembrance and creation.

These collections of humble vessels also highlight the complexities of the processes of creolization at the Cape settlement. The coarse earthenware is itself a combination of European production methods and local raw materials producing a form that replicated recognizable images of Dutch domesticity in this multicultural context. In a similar way, the popularity of European stoneware jugs kept the Cape tied materially into European ceramic production and use. While centuries-old stoneware appears outwardly as evidence against creolization, when combined with locally produced European-style coarse earthenware, architecture influenced by Indonesian slaves and free blacks, and abundant Asian porcelains, it emerges as one component of material creolization. Assemblages such as these reflect the mercantile nature of the Dutch East India Company. In supporting a local production by coarse earthenware potters, the Company manifested a key element of mercantile systems. Instead of encouraging constant dependence on provisioning from the Fatherland or expansion into unchartered territories, they helped their settlements to produce goods that would enable extraction of commodities—in this case meat and to a lesser extent fresh fruits and vegetables. This is especially well illustrated in Figure 5.31, the color version of the Castle cook made by Lady Anne Barnard in 1798, where an African woman, possibly a slave, is dressed in European clothes and busy cooking an imported fowl in what looks like a locally produced earthenware pipkin (Barker 2009: 39; Barnard 1994: 211). The coarse earthenwares from these three sites, viewed alongside their European stoneware cousins, represent a world of pre-industrial artisanal craft, of Dutch sea power, of mercantile companies, and of hesitant colonialism that would end abruptly in the 19th century, yet remain the foundation for imperial expansion in many places around the globe.

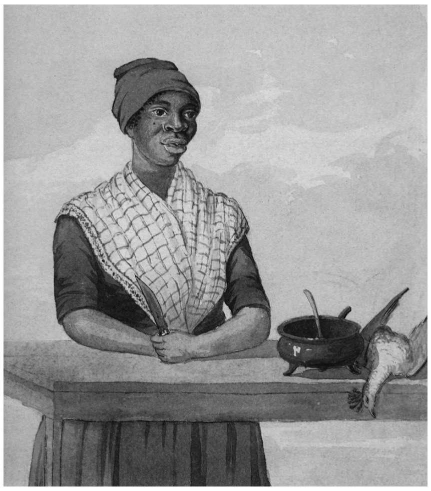

Figure 5.31. 'Our under Cook wife to the Hangman.' Lady Anne Barnard in Barker 2009:39.

Acknowledgments

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Notes

1. Wagenaer in Boëseken 1973:222.
2. The analyses of the Cape earthenware collections excavated from three sites within and associated with to the Castle of Good Hope, Cape Town, South Africa builds upon previous research conducted by Stacey Jordan (Jordan 2000a; Jordan et al. 1999), funded by the Wenner-Gren Foundation for Anthropological Research (S. Jordan, grants 5739 and 6021). For detailed information on the history of pottery production at the Cape, see Jordan 2000a and Jordan 2000b.
3. Light-bodied wares typically have white, buff, light pink, or very pale brown fabrics as described by Munsell Soil Color Charts.
4. First analyzed in Jordan 2000a, this collection was recatalogued in October 2006 and again in October 2008.

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CHAPTER 6

European Stoneware at the Cape

Stacey C. Jordan

Introduction

European stoneware from Cape collections provides an interesting, if relatively minor, component of the Cape's colonial material culture. Composed predominantly of Rhenish salt-glazed stoneware, a common conveyance for liquid goods during the era, these collections link the Cape back to its commercial roots in northwest Europe. The Cape stonewares emanate from earlier traditions in Germany and surrounding areas of Europe (Finke 1992). Stoneware was the third most frequently used ceramic in the Netherlands, though it was not manufactured there because the United Provinces, like the Cape, lacked appropriate local clays that could withstand the high temperatures (1200-1500° F) required for the vitrification characteristic of stoneware (Schaefer 1994: 65). Exported through Cologne and subsequently distributed through Dutch ports, these vessels made their way across the Dutch East India Company (VOC) network.

Salt-glazed stoneware production was fully developed in central Germany during the 16th century. The long production history of European stoneware has been extensively researched and published elsewhere (cf., Gaimster 1988, 1997; Hurst et al. 1986; Reineking von Bock 1986; Schaefer 1994). Little attention has been paid, however, to analyses of these vessels at the Cape. They generally constitute the smallest percentage of Cape ceramic assemblages, even where combined with Asian wares. Unlike coarse earthenware, which was produced locally at the Cape settlement by VOC potters using locally available raw materials, there is no archival reference in the Company's detailed records to stoneware clay collection or stoneware production as there is with coarse earthenware and bricks (see Jordan 2000; Jordan et al. 1999). In addition, there is a dearth of references to the specific presence of stoneware linking them as individual possessions or as containers for oils, vinegars and alcohols, which were the actual desired commodities. However, the connections and activities revealed through an analysis of excavated stoneware collections tie the 17th and 18th century Cape of Good Hope into both long-established traditions of the European homeland and new practices of the expanding colony.

Analysis

European stoneware collections from the Castle sites of the Van der Stel Moat (M90) and the Old Granary (F2) and from Oudepost I (OPI) were each catalogued separately using Minimum Number of Vessel (MNV) and sherd counts.

Site/Level

Each site had different depositional processes and, as a result, different stratigraphic relationships (see Chapters 2, 5). Within each site, however, analysis proceeded with reference to site levels in order to discuss, to the extent possible, potential differences between stratigraphic components and evidence of depositional processes within each site.

Object Number and MNV

Object numbers were given to all individual vessels within a site, as well as to each collection of miscellaneous undiagnostic fragments. Following Spencer-Wood (1987: 332), an individual vessel consists of distinctive sherds that cannot be

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considered part of any other vessel and which differ significantly from other sherds in body color, glaze color, decorative style or color, or shape. Due to the vagaries of the firing process, subtle differences in fabric, glaze, or decoration color on a body sherd were considered diagnostic if, and only if, that sherd could not, on the basis of shape or decoration, possibly be part of an already identified vessel. Sherds that could not be definitely identified as part of one particular vessel were called 'Miscellaneous,' and were excluded from this analysis.

Where individual vessels include sherds from multiple stratigraphic contexts, the MNV was attributed to the unit containing the largest number of sherds. If that happened to be a non-provenanced unit (NP), the actual provenanced unit was selected. For vessels with equal numbers of sherds in two levels, the uppermost one was used.

Origin

The general region of origin was recorded for each European stoneware vessel. Necessarily broad and based on visual evidence as well as comparative references, these categories consist of German, Unprovenanced European, and later, British wares.

Type/Glaze

European stonewares from the Cape collections were subdivided into general types based on recognized attributes, most significantly the combination of body color and glazing. All glazed European stoneware vessels at the Cape are salt-glazed, whether with the typically rough 'orange peel' glaze of German vessels or the smoother salt glazes of British commercial stonewares. In conjunction with fired fabric color, these attributes allowed individual vessels to be assigned broad designations, like Rhenish, Westerwald-type, or commercial salt-glazed.

Rhenish

Rhenish salt-glazed stonewares—and in particular the region's most recognizable product, the mask and medallion decorated *bartmann* jug—came to dominate utilitarian stonewares in the 17th and early 18th centuries.[1] Although there were various main production centers over time, with Frechen becoming the biggest producer by the 17th century, I have chosen to use the generalized attribution of 'Rhenish' for the brown salt-glaze stonewares excavated from the Cape. These single-handled Rhenish jugs are characterized by grey- or buff- colored bodies covered in a salt glaze over brown iron wash. They are either undecorated or can carry an applied stylized male face on the neck as well as stylized armorial medallions or floral rosettes on their globular bodies. Rhenish jugs come in a variety of sizes. Earlier examples tend to be squat and ovoid in shape, with a narrower sloping shape occurring predominantly after 1675. Individual dated examples as well as jugs depicted in early 17th -century Dutch genre paintings, however, have shown this trend to be only a very general chronological indicator of an individual vessel's date (Thwaite 1973). As with any craft, individual variation among potters is certainly to be expected. Nevertheless, a trend may be seen where narrower *bartmannen* do apparently predominate in assemblages dated after about 1675, a period that coincides with an expansion of the production and export of these vessels (Schaefer 1994: 224). Similarly, while masks become more stylized and armorial medallions become more schematic over the course of the 17th century, variation is present among later products lasting into the late 18th century (Gaimster 1997: 210, see also Noël Hume 2001: 118-120).

Westerwald-type

Grey-bodied Westerwald products, with a translucent salt glaze and often decorated with cobalt, were also a major component of European stoneware assemblages in the 17th and 18th centuries, occurring in such utilitarian forms as tankards, jugs, and chamber pots. Production began at Raeren in Belgium in the mid-16th century, though the center of production moved to the Westerwald region of Germany by the end of the century. Although they might also geographically be considered 'Rhenish,' the deviation in style and function from the Rhenish brown salt-glaze vessels described in the preceding section warrants a separate typological distinction in the context of the Cape collections. While earlier vessels carried intricate relief and sprig-molded decoration, grey 'monochrome' stonewares lacking decoration reappear in Westerwald about 1675 after a cessation during most of the 17th century and continue into the 18th century. More stylized, impressed or incised designs began to appear by the second quarter of the 18th century (Gaimster 1997: 179).

Undiagnostic European

This category is used for those stoneware vessels that are known to have been produced in the stoneware centers of Europe but are not definitively Rhenish.

British Commercial Salt Glaze

This category encompasses British commercial vessels with a smooth, very light brown salt glaze, like blacking bottles and ink bottles. These mass-produced stoneware vessels span the 19th century.

British Nottingham-type

Rare pieces of Nottingham-type ceramics, a type of British salt-glazed stoneware, are found in these Cape sites. They were made in Nottingham and other production centers over the course of the 18th century, and have an iron engobe wash under a smooth salt glaze that produces a shiny, almost metallic sheen. Nottingham-type vessels are often at the more decorative or less utilitarian end of the spectrum, with an emphasis on tea services and beverage service vessels like cups and mugs as well as purely decorative figurines (see Oswald 1974). A variety of decorative techniques were used on Nottingham-type vessels, with some like clay shavings (ca.1740-ca.1780). Applied decoration, piercing, and cordoning (post-ca.1750) are chronologically diagnostic; incised and engine-turned decorative motifs lasted the length of the ware's production.

Form and Subform

European stoneware collections from Cape sites exhibit a limited number of the range present in Europe and include forms common from the medieval period through to today, including jugs, pitchers, and mugs. Primarily related to beverage storage and service, the collections under examination here have been assigned forms (e.g., jug or pitcher) and, in the instances of Rhenish stoneware jugs, a subform, in order to delineate undecorated globular jugs from the decorated *bartmann* vessels.

Jugs are single-handled globular or ovoid bottles with a narrow neck and mouth, used for the storage and distribution of liquids. This form dates from the early 16th century through the 18th century, and was used for a variety of alcoholic beverages and other commodities such as mercury and vinegar. Subforms of the jug include *globular*, referring to undecorated Rhenish jugs, and *bartmann*, referring to the easily identifiable decorated vessels. *Mugs/tankards* are single-handled generally cylindrical or slightly ovoid drinking vessels. *Pitchers* are single-handled vessels with a wide neck and mouth, and a pouring spout. *Jars/pots* are storage vessels, generally somewhat conical with a rim diameter larger than the base diameter. *Mineral water bottles* are tall, narrower jugs designed for holding mineral water and often, in the 18th century, with a Westerwald-type grey body. *Marbles* are Rhenish salt-glazed stoneware spheres, larger in size than today's marbles, used for gaming. *Blacking bottles* are mass-produced cylindrical vessels with a sharp shoulder and outward flaring rim. Dating to the 19th century, they were used for the storage of blacking used to clean and waterproof leather as well as to clean, smooth, and polish stoves. *Bowl/Cup* is used to describe smaller outward flaring vessels used for beverage or other liquid service. *Inkwells* similarly are mass-produced salt-glazed stoneware vessels, generally squatter than blacking bottles and with a short, narrow rim opening at the top of the sharply-angled shoulder.

Function

Forms relate strongly to function. On a general level, each individual stoneware vessel has been organized into a broad functional category. Collectively they include storage, beverage storage, and beverage service; small numbers of vessels also represent gaming and, possibly, heating. Functionally, it is important to remember that the majority of the stoneware vessels from these sites were not in and of themselves commodities, but instead were containers for the storage and distribution of the various liquid goods sought by the Cape's residents.

Description

A description of each vessel is provided in order to identify, to the extent possible, details of fabric or glaze, any diagnostic sherds, details of decoration, and any measurable non-rim or non-base sherds.

Measurements

Measurable rim and base fragments are used to estimate rim and base diameters in millimeters using diameter charts. In the case of Rhenish stonewares, this can assist in estimating general bottle or jug sizes and capacities.

Total Sherd Count/Provenance

The total sherd count of each individual vessel is provided for each site. Following Spencer-Wood (1987: 332), a single vessel was considered to be represented by distinctive sherds that could not be considered part of any other vessel, differing significantly from others in body color, glaze color, decorative style, decorative color, or shape. Because of the vagaries of the firing process, subtle differences in fabric or glaze color were not considered diagnostic and any sherds that could not be definitively identified as part of one particular vessel were counted as 'Miscellaneous' and not included in this analysis.

The number of sherds in each stratigraphic unit is also provided. The Van der Stel Moat (M90) has five levels reading from top to bottom, SF, A1, A2, B and C (see Chapter 2). In the case of the Old Granary (F2), vessels were identified by horizontal stratigraphic Phases 7-1. Sherd provenance for Oudepost I vessels is recorded by horizontal units including Fort, Lodge, DP (Intertidal Dump) and NP (Non Provenanced), as well as by a series of vertical units including X, I, and II (see Chapter 2).

Cross mends

Cross mends between sherds from different horizontal stratigraphic units are noted in the catalogs in order to help assess depositional and post-depositional processes.

Date Range

A general date range for each vessel is provided. These are based on general production dates for the vessel type or diagnostic characteristic in question, as found in established reference works (see Gaimster 1988, 1997; Hurst et al. 1986; Reineking von Bock 1986) as well as in site specific reference works (see Baart et al. 1986; Bult 1992; Clevis and Smit 1990).

Dates from these reference works may be further constrained by the known *terminus ante quem* of the sites being examined. For example, while Rhenish brown salt-glazed stoneware jug production lasted into the late 18th century, their end date for the Cape sites here is listed as 'ca. 1750' in order to encompass but not reinterpret the known dates of the sites themselves.

Many Dutch systems catalogs employ the Deventer system, which only recognizes quarter-centuries and uses the century number in combination with a letter depicting the quarter or half century (e.g., 17c for the third quarter of the 17th century or 18A for the first half of the 18th century). The Deventer system is not used extensively outside of the Netherlands, however, and alone it requires explanation for those unfamiliar with it. Instead, I stay with the more common practice of using the date ranges themselves (e.g., ca.1675 to ca.1750). While seemingly broad, this perspective can be useful for general studies of particular classes of artifacts whose provenance and dates of production may be overly broad or even unknown. So, for example, German stoneware production continued uninterrupted from medieval to post-medieval times, and the Rhenish salt-glazed stoneware jugs, whose production began in the 1500s, did not experience overly dramatic changes is form and style through the end of the 1700s. Subtle variations in shape and decoration may help to elucidate where a vessel falls on the spectrum, but for the collections analyzed here, the dates of use and deposition fall within a small portion of that range within which chronologically diagnostic changes are difficult to detect.

Reference

The accompanying catalogs include only references particular to the identification of a specific vessel. General references as to the production of European stoneware, its function, and its formal identification are presented in this discussion.

Illustrations

Catalogs and color images of some figures appear in the enclosed CD. The scale used for all artifacts is calibrated in one centimeter increments.

Sites

Castle: Van der Stel Moat (M90)

Seventy-four stoneware vessels were found at the Castle's Van der Stel Moat, comprising a relatively small collection in comparison to more than 200 coarse earthenware vessels from the same site (see Chapter 5). The majority of these (65 or 88% of the total collection) are German vessels (Table 6.1). These include 47 globular Rhenish salt glazed jugs (64% of the total collection), of which 12 are identifiable *bartmannen* (25% of the 47 Rhenish jugs and 16% of the total collection) (Table 6.2). There are also nine Westerwald-type vessels, including three jugs, one mug/tankard, one pitcher, two water bottles, and two unidentified forms (Tables 6.1, 6.2). The remainder of the German vessels includes four Rhenish brown salt-glazed marbles and five undiagnostic Rhenish brown salt-glazed forms. British wares are also present in the form of two commercial salt-glazed blacking bottles and one Nottingham-type vessel with incised decoration. Two possible crucibles and five undiagnostic salt-glazed stoneware vessels (including the five Rhenish wares) complete this assemblage.

Table 6.1. Van der Stel Moat (M90):
Stoneware vessel type distribution by Level (MNV)

Vessel Type	**Level**					**Total**	
	SF	**A1**	**A2**	**B**	**C**	**Nos.**	**%**
Rhenish Brown Salt-Glazed	5	11*	27**	6	7	56	75.7
Westerwald-type	-	4	5	-	-	9	12.1
British commercial	1	1	-	-	-	2	2.7
British (Nottingham-type?)	-	-	-	-	1	1	1.4
Unprovenanced	-	3	1	1	1	6	8.1
Total	6	19	33	7	9	74	100.0

*1 vessel cross mends between levels, highest sherd density in A1

**2 vessels cross mend between levels, highest sherd densities in A2

Table 6.2. Van der Stel Moat (M90):
Stoneware vessel form distribution by Level (MNV)

Vessel Form	**Level**					**Total**	
	SF	**A1**	**A2**	**B**	**C**	**Nos.**	**%**
Bartmann	-	2*	8	1	1	12	16.2
Jug	3	8	20**	2	5	38	51.3
Mug/Tankard	-	-	1	-	-	1	1.4
Pitcher	-	1	-	-	-	1	1.4
Water bottle	-	-	2	-	-	2	2.7
Marble	-	1	1	1	1	4	5.4
Blacking Bottle	1	1	-	-	-	2	2.7
Crucible?	-	1	1	-	-	2	2.7
Undiagnostic	2	5	-	3	2	12	16.2
Total	6	19	33	7	9	74	100.0

* 1 vessel cross mends between levels, highest sherd density in A1

** 2 vessels cross mend between levels, highest sherd densities in A2

Bartmannen

The following vessels are noteworthy.

EST 1 is a reduced grey-bodied jug with a very light iron wash under the salt glaze and a crude mask. The smudged upper portion of the mask appears to be a furrowed brow over naturalistic eyes, with a flattened hourglass mouth over a three-part beard whose vertical lines curve outward from a series of central horizontal lines; the nose is unidentifiable (Figure 6.1).

EST 5, a buff-bodied jug, has a dark iron wash under the salt glaze, and is identifiable as a *bartmann* by virtue of a beard of vertical lines curving outward from a central line and a highly stylized rosette measuring only 38 mm in diameter under the mask. The rosette consists of a centered spiral surrounded by five dots enclosed in a continuous wavy line forming petals. Small dots are located outside of and between each stylized petal (Figure 6.2).

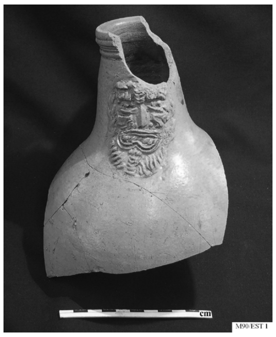

Figure 6.1. European Stoneware from the Castle Moat (M90) excavation, showing grey-bodied jug with mask (EST 1). Scale in cm. (Photo C. Schrire)

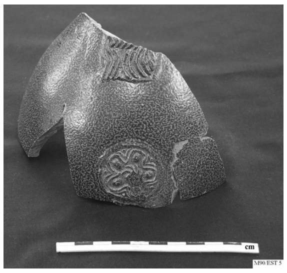

Figure 6.2. European Stoneware from the Castle Moat (M90) excavation, showing buff-bodied jug with *bartmann* mask (EST 5). Scale in cm. (Photo C. Schrire)

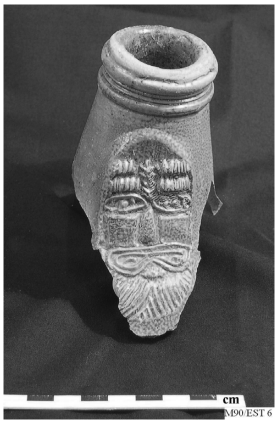

Figure 6.3. European Stoneware from the Castle Moat (M90) excavation, showing grey-bodied jug with complete mask (EST 6). Scale in cm. (Photo C. Schrire)

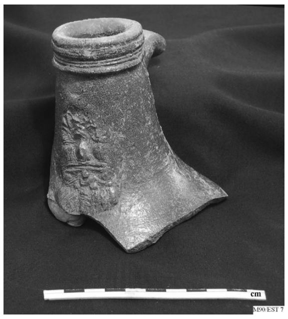

Figure 6.4. European Stoneware from the Castle Moat (M90) excavation, showing grey-bodied jug with crude mask (EST 7). Scale in cm. (Photo C. Schrire)

EST 6 is a grey-bodied jug with pink interior slip and a light iron wash. This vessel includes a portion of an unidentifiable medallion and a complete mask. The long, narrow mask is a complex combination of elements not easily classified, including a flattened hourglass mouth over a beard comprised of vertical lines that curve slightly outward, a teardrop nose set between two squares delineating cheeks, eyes set beneath naturalistic eyelashes, and eyebrows with the space between appearing like a stylized laurel or shaft of wheat (Figure 6.3).

Another crude mask is present on EST 7, whose grey body is covered in a dark iron wash. This mask is comprised of what appears to be a simple three-part beard consisting of central horizontal lines between vertical lines. This sits beneath a mouth consisting of five beads or dots arranged around a wavy line. The exact structure of the mask's raised cheeks and nose is unclear, as are the eyes, which appear to have been squashed when the mask was applied (Figure 6.4)

EST 8 is similarly crude. Slightly curvilinear lines that comprise the beard surround an hourglass mouth. A triangular nose protrudes fairly far from the vessel's surface, and is set between two dots or beads, perhaps representing nostrils. Vertical incisions on either side of the nose help to define the cheek area. Beyond portions of simple eyes under naturalistic eyelashes, the top portion of the mask appears smoothed into the vessel and is unidentifiable; a remnant of a medallion border is also present (Figure 6.5).

The sherds of EST 14 indicate that this *bartmann* burned prior to deposition. Still visible on the exterior, however, is a single eye under naturalistic eyelashes and a single thin crescent eyebrow. Only a small fragment of a medallion identifies the buff-bodied jug EST 23 as a *bartmann*. The images represented in the medallion have not been identified but might be a bird's head; the remaining fragment consists of raised curvilinear lines and circles within a well-defined raised border that angles inward from the jug surface. The medallion's proper orientation is undetermined.

EST 26 is a buff-bodied jug with a grey exterior. The bottom edge of an unidentifiable mask and portion of a rosette are present (Figure 6.6). The detailed rosette consists of a stylized flower whose five petals set around a laddered circle enclosing a central spiral. Between the petals are single dots set between angled lines. The thick rosette is enclosed in a band of radiating lines. A portion of another, more crudely executed rosette is present on EST 27, represented only by the outside band of thick radiating lines. The interior of the rosette is unidentifiable, and it appears that the rosette was applied with some force, as indicated by the ridge of expressed clay surrounding the design.

EST 41 is a buff bodied jug with a solid medium-brown iron wash under a smooth salt glaze. Three fingertip impressions form a triangle under the vessel's handle scar. Remains of a medallion or rosette border consist of two parallel rows of raised, linear beads set between raised border edges. Fragments of two additional vessels (EST 55, 65) include the outside edge of unidentified appliqué medallions.

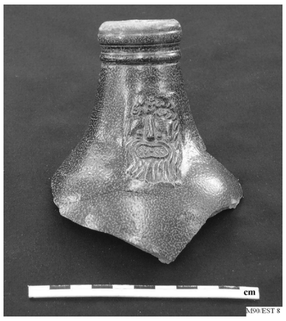

Figure 6.5. European Stoneware from the Castle Moat (M90) excavation, showing grey/brown-bodied jug with crude mask (EST 8). Scale in cm. (Photo C. Schrire)

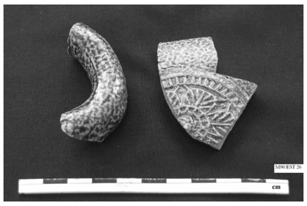

Figure 6.6. European Stoneware from the Castle Moat (M90) excavation, showing buff-bodied jug with detailed rosette (EST 26). Scale in cm. (Photo C. Schrire)

Westerwald-type

Of the nine Westerwald-type vessels, two (EST 15, 24) are mineral water bottles with a typical interior orange slip. Another jug, while not explicitly decorated on recovered sherds, has a mottled cobalt blue salt-glazed exterior (EST 42). This strap-handled vessel also has a round cobalt splotch measuring 30-35 mm in diameter; its walls appear flattened in places. A straight walled, grey-bodied mug or tankard is also present (EST 29). A pitcher (EST 31) is decorated with small, randomly placed cobalt splotches measuring 5 to 15 mm in diameter on its exterior. A single grey-bodied, salt-glazed sherd not matching any other vessel has also been classified as Westerwald-type (EST 52). A single, thin (3 mm) grey-bodied sherd with a smooth salt glaze and cobalt flecks along the break and another sherd did not match any other identified vessel (EST 54). Both of these buff-bodied vessels are classified here as 'unidentified' forms.

The most recognizable Westerwald vessel recovered in the Moat collection is a *kugelbachkrug* (EST 30), a small globular jug (see Schaefer 1994: 222, Reineking von Bock 1986: 353 no. 566) (Figure 6.7). This grey-bodied, cobalt-decorated vessel has a flat base with a diameter of 100 mm, and a cobalt decorated neck with a rim diameter of 50 mm. The sherds carry a pink slip on their interior side. The jug has a medallion encircled with cobalt measuring 62 x 55-60 mm. Within the medallion is a stylized coat of arms measuring 45 x 38 mm, consisting of a schematic shield carrying a truncated fillet cross with a scrolled heart motif in each quarter. Above the shield is a central, cobalt-decorated raised bead surrounded by scroll motifs that appear to form two stylized lions in profile facing each other or, alternatively, a fleur-de-lys between stylized scroll work. Ribbons on either edge of the medallion read 'ADRIAEN' down the right side and 'OXEL' up the left. This same medallion has been recovered on two chamber pots from Delft dated between about 1650-75 and 1725 (Bult and Nooijen 1992: 85). No details of the medallion decoration besides the name are described, and no information on its production source is known. These vessels resemble many Westerwald chamber pots, which also have two large relief lions surrounded by cobalt on either side of the medallion (cf. Baart et al. 1986: 96). No fragments of such decoration were recovered from the Moat. Our vessel appears to have too small a curvature and circumference to be a chamber pot. It was associated with a narrow cordoned neck, strap handle, and other body sherds in the same body and glaze color with the same interior pink slip.

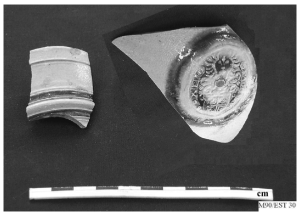

Figure 6.7. European Stoneware from the Castle Moat (M90) excavation, showing small globular, grey-bodied jug with cobalt decoration (EST 30). Scale in cm. (Photo C. Schrire)

Other German Products

The remainder of the identifiable German component of the assemblage includes fragments of four salt-glazed German marbles (EST 32, 37, 53, 67). They are typical Rhenish products, with a dark brown iron wash under a coarse salt glaze over a grey or buff-grey body. Two are large enough to provide diameter information, with one measuring 35 mm in diameter and the other measuring 40 mm. Stoneware marbles (Dutch *knikkers*) have also been found in Cape Town at the slave lodge (Abrahams-Willis 2002), as well as at Dutch sites such as the 18th-century domestic refuse deposits on Oostenburgermiddenstraat in Amsterdam (Baart et al. 1986: 137e, f, g). Stoneware marbles were first produced in Germany and Belgium in the 16th century, from where they were carried across the globe on Dutch East India Company ships (see Gartley and Carskadden 1998).

British Products

Three British vessels are present in the collection. There are two commercial salt-glazed blacking bottles. One (EST 36) comes from the Surface level (SF) and is a cylindrical bottle approximately 80 mm in diameter, with 'J.B.D. Blacking Bottle' impressed on its surface (Figure 6.8). A similar second blacking bottle is from Level A1 (EST 48). There is one sherd of possible Nottingham-type ware (EST 69; cf. Oswald 1974). Grey-bodied, the small sherd measures only 14 x 10 mm and has a brown glazed interior and exterior; pooled glaze sits within three parallel incised lines. Its presence in the lowermost level, C, is not wholly inconsistent with the site, since Nottingham-type vessels were produced as early as 1700.

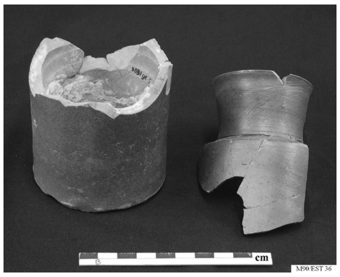

Figure 6.8. European Stoneware from the Castle Moat (M90) excavation, showing commercial salt-glazed blacking bottle with surface impression (EST 36). Scale in cm. (Photo C. Schrire)

Undiagnostic Products

While not strictly speaking a stoneware vessel, two possible crucibles were catalogued with the Castle Moat stoneware material (Tylecote 1982). EST 28 is a semi-circular hollow form with a base diameter of 67 mm; what appears to be melted copper and glass is attached to the vessel, suggesting its use as a crucible. EST 47 is comprised of heavily burned sherds from a semi-circular hollow vessel.

Discussion

The distribution of the 74 stoneware vessels from the Van der Stel Moat is shown in Tables 6.1 and 6.2, which show the main types and forms distributed throughout the deposit, with the richest levels, A1 and A2, containing most of the vessels.

Only three cross mends were identified in the M90 European stoneware assemblage, showing stratigraphic connections between the adjacent A1, A2, and B levels. Vessel EST 11 has cross mends linking levels A1 and A2 as well as A1 and B. Vessel EST 14 has sherds that cross mend between levels A1 and A2, and vessel EST 17 cross mends between levels A2 and B. Since all mends in each vessel emanated from adjacent levels, they suggest relatively rapid deposition and site formation as opposed to post-depositional disturbance.

The Westerwald-type vessels come mainly from the later Levels A1 and A2 (Table 6.1) suggesting perhaps that they date into the early 18th century (Gaimster 1997: 252, Vogt 1993: 3). The stratigraphic position of the British blacking bottle on the surface is consistent with the use of the Van der Stel Moat area for garbage deposition long after it was filled.

The strong predominance of Rhenish brown salt-glazed jugs in the M90 stoneware collection suggests that the role of stoneware at the Cape was different from its role in Europe. The collection lacks the wide variety of tablewares and other utilitarian items in use there during the late 17th and 18th centuries. Instead, reusable, commodity-bearing Rhenish brown stoneware jugs suggest that stoneware held a particular place at this port station, which was known as the 'Tavern of the Seas.' Exported from Germany to the Netherlands and carried on Dutch ships across their routes, these jugs carried familiar goods as near as England and as far as the outlying locales of the Dutch mercantile empire.

Within this fairly ubiquitous form, size provides the most information as to their use and reuse at the Cape. A number of measurable body diameters existed among the Rhenish plain and *bartmann* jugs in the Moat collection, reflecting a wide range of vessel sizes. The smallest measurable body diameter was 70 mm, reflecting a vessel that may have served as storage or transport for oils or vinegars, or as a reusable individual drinking and decanting vessel (Schaefer 1994: 226). A second vessel measuring 76 mm in body diameter reflects a similar activity. Two vessels measuring 90 and 95 mm in body diameter, respectively, represent slightly larger vessels, though ones that may have been used for similar purposes as their smaller counterparts. Three vessels represent the middle of the range excavated from the moat, with body diameters of 105, 105, and 108 mm. One vessel provided both body and foot-ring diameters, offering a means of extrapolating vessel sizes from a single element. This vessel measured 125 mm in body diameter and 73 mm at the foot-ring, suggesting a serving vessel for more than one person or, at the least, more than one sitting. A second vessel with a measurable footring of 75mm would likely have a comparable size to this vessel. The largest measured body diameter was 150 mm, suggesting a large storage or multiple-use service vessel. One vessel with a neck measurement of 52 mm also suggests the presence of vessels of larger size. While not a diagnostic characteristic, the majority of the neck fragments and shoulder fragments excavated also reflect, in their thickness and broad angle respectively, vessels of larger capacity.

Castle: Old Granary (F2)

The stoneware collection excavated from the Old Granary F2 has the least variation of the three collections examined here (Tables 6.3, 6.4). The collection was comprised primarily of small fragments that did not yield any measurable elements suggesting that the MNV count might be inflated. All of the 23 vessels are clearly German products, and 20 are globular Rhenish brown salt-glazed jugs, including two identifiable *bartmannen* jugs. The other three are Westerwald-type vessels.

Table 6.3. Old Granary (F2): Stoneware vessel type distribution by Phase (MNV)

Vessel Type	**Phase**					**Total**	
	7	**5**	**4**	**3**	**1**	**Nos.**	**%**
Rhenish Brown Salt-Glazed	4	2	3	6	5	20	87.0
Westerwald-type	1	1	1	-	-	3	23.0
Total	5	3	4	6	5	23	100.0

Table 6.4. Old Granary (F2): Stoneware vessel form distribution by Phase (MNV)

Vessel Form	Phase					Total	
	7	5	4	3	1	Nos.	%
Bartmann	-	-	-	1	1	2	8.7
Jug	5	2	3	5	3	18	78.3
Pot?	-	1	-	-	-	1	4.3
Undiagnostic	-	-	1	-	1	2	8.7
Total	5	3	4	6	5	23	100.0

Bartmannen

Two *bartmannen* jugs could be identified in the assemblage. Vessel EST 1 consists of a mask with an hourglass mouth and a beard consisting of a series of thick horizontal bands (Figure 6.9). Vessel EST 11 contains a small fragment of an unidentifiable mask in a heavily micaceous fabric.

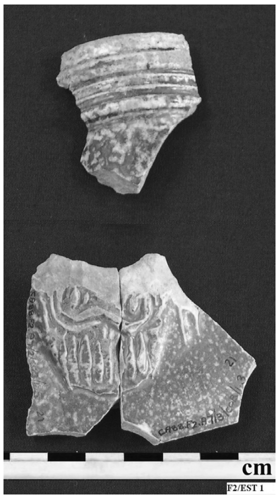

Figure 6.9. European Stoneware from the Old Granary (F2) excavation, showing *bartmann* mask (EST 1). Scale in cm. (Photo C. Schrire)

Westerwald-type

Three Westerwald-type vessels are present in the collection, including a jug with a cobalt-decorated horizontal bead around the neck (EST 19), an undecorated pot or jug (EST 16), and an undiagnostic form (EST 15).

Discussion

The Old Granary (F2) stoneware vessels are evenly distributed in all artifact-bearing levels of the site, with the exception of Phase 2. There are no cross mends between phases. While no temporally diagnostic pieces are present, the sparse cobalt decoration of the Westerwald-type pieces, in contrast to more complex sprig-molded or relief decoration, dates these upper phases to the early 18th century, as suggested by pipe stem analyses of the site (Yates et al. n.d.: 5, 16; see Chapter 2).

Oudepost I (OPI)

The Oudepost collection is tabulated mainly by sherd counts in order to deal with the effects of post-depositional disturbance that led to a wide distribution of parts of single vessels (Tables 6.5, 6.6). It contains 472 sherds with about half (241 or 51%) being found in the intertidal dump (DP) and Non Provenances (NP) (Tables 6.5, 6.6). The collection contains an MNV count of 43, including 39 German vessels, one of which is a small, intact jug (EST 4) (Figure 6.10). Thirty of these are Rhenish brown salt-glaze globular jugs, including 11 identifiable *bartmannen* jugs. Also included are four sherds with *bartmann* designs not numerated as individual vessels. Other Rhenish brown salt-glaze products include one handled pitcher and one salt-glazed storage pot. Seven Westerwald-type vessels in diverse forms are also present in the collection, together with three British Nottingham-type vessels (two definite and one possible). One squat jar with a squared rim remains unprovenanced and may not be of European origin (Tables 6.5, 6.6).

Table 6.5. Oudepost I (OPI): European stoneware vessel type distribution by Unit and Level (sherds)

Vessel Type	Unit (Sherds)						MNV		Level (Sherds)				
	Fort	Lodge	DP	NP	Total				X	I	II	Total	
					Nos.	%	Nos.	%				Nos.	%
Rhenish Brown Salt Glazed	48	130	115	104	397	84.1	32	74.4	16	66	96	178	77.1
Westerwald-type	23	4	3	13	43	9.1	7	16.3	11	15	1	27	11.7
British	-	13	6	-	19	4.0	3	7.0	-	6	7	13	5.6
Unprovenanced	-	13	-	-	13	2.8	1	2.3	-	11	2	13	5.6
Total	71	160	124	117	472	100.0	43	100.0	27	98	106	231	100.0

Table 6.6. Oudepost I (OPI): European stoneware vessel form distribution by Unit and Level (sherds)

Vessel Form	Unit						MNV		Level				
	Fort	Lodge	DP	NP	Total				X	I	II	Total	
					Nos.	%	Nos.	%				Nos.	%
Bartmann	7	93	66	73	239	50.6	11	25.6	3	24	73	100	43.3
Jug	40	37	49	30	156	33.1	21	48.8	12	42	23	77	33.4
Mug	1	-	-	-	1	0.2	2	4.7	1	-	-	1	0.4
Pitcher	1	4	1	6	12	2.5	5	11.6	1	4	-	5	2.2
Jar/Pot	22	20	2	7	51	10.8	1	2.3	10	23	9	42	18.1
Inkwell	-	-	-	1	1	0.2	1	2.3	-	-	-	-	-
Bowl/Cup	-	6	6	-	12	2.5	2	4.7	-	5	1	6	2.6
Total	71	160	124	117	472	99.9	43	100.0	27	98	106	231	100.0

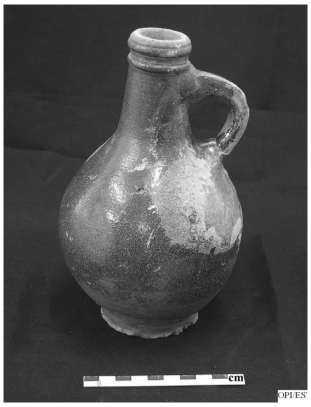

Figure 6.10. European Stoneware from the Oudepost I (OPI) excavation, showing small, intact German jug (EST 4). Scale in cm. (Photo C. Schrire)

Bartmannen

The *bartmann* collection from Oudepost I totals 239 sherds with a MNV count of 11 (Table 6.6). Notable forms are as follows.

EST 17 is a grey-bodied vessel with a heavy salt glaze. A portion of a medallion carries a stylized armorial design. The design, which does not appear in the collection from the wreck of the *Batavia* (1629) (Green 1989), consists of a stylized shield carrying a portion of a curvilinear line, likely representing a curling tail twisting into the upper right corner. The shield is surmounted by a line of chevrons. Above this is a centered spiral within a circle of connected dots; on either side of the spiral is a six-pointed star (Figure 6.11).

Grey-bodied EST 20 carries a poorly applied mask. The eyes, dots between an upper and lower crescent, are set beneath an obscured eyelash and eyebrow area. A raised nose ends between raised cheek areas, and a curvilinear impression serves as the mask's mouth. The beard consists of a set of three horizontal raised lines on either side of the mouth and a series of vertical lines beneath (Figure 6.12).

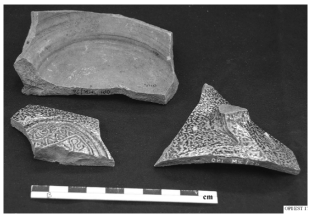

Figure 6.11. European Stoneware from the Oudepost I (OPI) excavation, showing grey-bodied vessel with partial medallion in a stylized armorial design (EST 17). Scale in cm. (Photo C. Schrire)

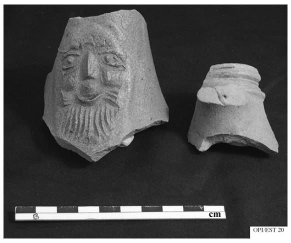

Figure 6.12. European Stoneware from the Oudepost I (OPI) excavation, showing grey-bodied vessel with mask (EST 20). Scale in cm. (Photo C. Schrire)

EST 21 matches EST 20, though the two vessels have different rim diameters and, as such, are considered two different vessels. EST 21 has a highly stylized medallion measuring 28 mm in diameter, consisting of a central bead surrounded by sets of three raised lines separated by dots. At the upper right of the medallion fragment sit three small raised lines and, along the presumed bottom, a raised and curved line resembles a stylized armorial ribbon.

EST 22 is a thick, buff-grey bodied vessel with a heavy iron wash. The vessel has portions of a mask consisting of a simple oval mouth, similar to an hourglass shape, over what appears to be an inverse linear beard and a fragment of a naturalistic eye.

A nearly complete rosette and the edge of a beard identify grey-bodied EST 25, which has heavy potter›s marks on its interior, as a *bartmann* jug. The rosette consists of a simple eight-petalled flower enclosed in a crude boxed border.

EST 29 exhibits another highly stylized *bartmann* element, a simplified mask. The eyes are comprised of a central bead enclosed in an 'iris' consisting of opposing crescents, sitting between a lower crescent and thick upper eyelashes or brows. Between the eyes is a vertical series of inverted chevrons. The nose is raised and broadens at the bottom, which is centered between two small beads, perhaps representing nostrils. Curvilinear lines sweep outward from the nose and around the hourglass mouth, ending in a series of short vertical lines. The edges of the mask appear smudged (Figure 6.13).

EST 30 carries a complete oval medallion measuring 76 x 63 mm. The medallion appears to be a variation of the rose-crown-heart motif commonly found on the *Vergulde Draeck* (1656) (Green 1989: 131). A double-lined heart around inward-pointing lines and a central bead sits beneath a line of five boxed beads, above which is centered a stylized five-petal rose. The elements are enclosed in a boxed-bead border (Figure 6.14).

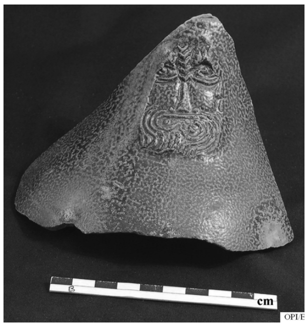

Figure 6.13. European Stoneware from the Oudepost I (OPI) excavation, showing highly stylized *bartmann* mask (EST 29). Scale in cm. (Photo C. Schrire)

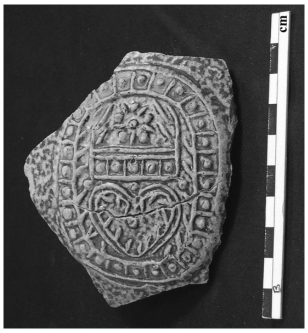

Figure 6.14. European Stoneware from the Oudepost I (OPI) excavation, showing complete oval medallion with rose-crown-heart motif (EST 30) similar to those from the shipwreck of the *Vergulde Draeck* (1656) (cf. Green 1989:131). Scale in cm. (Photo C. Schrire)

Four other vessels were identifiable as *bartmann*en, but on the basis of very small diagnostic decoration. EST 7, a buff-bodied salt glazed jug, carries a small portion of a mask. The mask is highly stylized, with double eyebrows separated by a line of inverted chevrons resembling wheat, and portions of a triangular nose between bead eyes. EST 8 has a grey body with a green-brown iron wash under its salt glaze, and carries the upper portion of *bartmann* mask. The mask consists of bead eyes under tall flame-like eyebrows. Buff-bodied EST 18 has a light iron wash under a salt glaze as well as a simple, empty impressed circle measuring 18 mm in diameter on its body. EST 28, buff-bodied with a reduced grey exterior and dark brown iron wash, carries an unidentifiable portion of a mask, possibly a beard.

In addition, there were four medallions in the collection that could neither could be definitely associated with only one identified vessel nor could any be ascribed to a separate vessel itself. These were counted as miscellaneous Rhenish fragments, and identified in the OPI EST catalog as 48a-d with an MNV of 0. EST 48a is a medallion with a highly stylized armorial shield emblazoned with chevronels between five-pointed stars in the upper right and left corners (Figure 6.15). A stylized crown surmounts the shield, and the entire coat of arms is surrounded on either side by raised, angled lines. A border of small, outward-pointing triangles encloses the medallion. EST 48b shows only a medallion border of a laurel wreath; the interior of the medallion is missing. EST 48c has what appears to be a floral element adjacent to a boxed line. 48d is a water-worn medallion border of raised dots and other unidentifiable stylized.

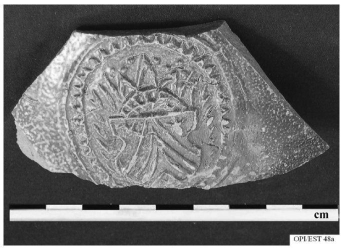

Figure 6.15. European Stoneware from the Oudepost I (OPI) excavation, showing highly stylized armorial shield (EST 48a). Scale in cm. (Photo C. Schrire)

Westerwald-type

Westerwald-type ceramics include 43 sherds (Table 6.5) with a MNV of seven. They include three seemingly 'monochrome' vessels. These consist of one mug measuring 100 mm in body diameter (EST 3), one short cylindrical inkwell measuring 25 mm at the rim and 50 mm at the base and body (EST 5), and one flat-based, straight-walled jar or open pot with a single cordon at the shoulder and a rim diameter of 120 mm (EST 12). Such 'monochrome' stonewares, lacking decoration, reappear in Westerwald around 1675 after a cessation during most of the 17th century and subsequently continue into the 18th century (Gaimster 1997: 179).

The four remaining vessels have typical Westerwald-style cobalt decoration. The first (EST 1) is a straight-walled open pot, 140 mm in diameter at the rim, with cobalt-decorated cordons beneath the rim and cobalt-decorated incised flowers and leaves set inside an incised, scalloped circle. This style of decoration begins in the second quarter of the 18th century (Figure 6.16). The second (EST 13) is a small ovoid, handled jug or flask decorated with cobalt lines and dots measuring only 27 mm at the rim (Figure 6.17). EST 39 is the same, measuring 50 mm in diameter at the rim; an incision 15 mm below the rim has evidence of cobalt decoration. The final Westerwald vessel (EST 2) is a pitcher with random cobalt splotches around the body.

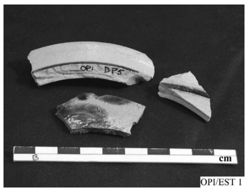

Figure 6.16: European Stoneware from the Oudepost I (OPI) excavation, showing pot with Westerwald-type cobalt decoration (EST 1). Scale in cm. (Photo C. Schrire)

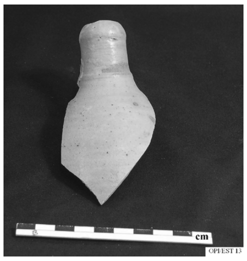

Figure 6.17: European Stoneware from the Oudepost I (OPI) excavation, showing jug with Westerwald-type cobalt decoration (EST 13). Scale in cm. (Photo C. Schrire)

British Products

The Oudepost material also yielded two definite and one suspected Nottingham-type vessels. EST 40 is a small bowl or cup with an orange body and with a reduced grey interior and walls. Covered in a brilliant dark brown metallic glaze over a thin white slip, the vessel has a flat footring that is trapezoidal in profile; the footring and bottom surface are unglazed. A second small bowl or cup, EST 43, has a buff body with a glaze and footring similar to EST 40, with the trapezoidal footring measuring 80 mm in diameter. This vessel carries impressed chevron decoration directly above the footring. While British vessels might seem out of place in this far-flung outpost of the VOC, Nottingham-type ware was produced from the beginning of the 18th century, with a decline after about 1775. The engine-turned stamped chevron design seen on EST 43 is typical of this ware. The third vessel (EST 41) is a suspected Nottingham-type, with a smooth light brown glaze over a convex body with a constricted neck and flaring rim. Overlapping waves or inverted chevrons are impressed on the exterior (see Oswald 1974).

Undiagnostic European Products

EST 42, a small light-bodied jar or open pot, is presumed to be of European manufacture. This vessel has a smooth dark brown glaze over a lightly convex body, with a squared rim that protrudes in profile.

Discussion

The OPI vessels are tabulated to show the broad scatter of material across the site (Tables 6.5, 6.6). Nine vessels catalogued as EST 1, 8, 9, 10, 23, 24, 25, 30, and 31 have corresponding sherds found on land and in the intertidal dump DP, suggesting intermittent dumping of residues into the sea after the vessels broke on land. The sherd counts show that most fragments are concentrated in and around the lodge and that their vertical distribution concentrates in Levels I and II (Table 6.5). Where forms are concerned, the abundant presence of Rhenish jug sherds overwhelms any other distributional patterns (Table 6.6).

In order to examine activity patterns, distribution of vessels must be examined to the extent possible. There was no apparent spatial difference in the deposition of different vessel types; this is not unexpected, as there was little formal variety in the collection. Eighteen vessels were recovered solely from either the intertidal dumps (n=2) or unprovenanced locations including private collections (n=5), or from a combination of the two (n=11), further indicating the range of deposition locales and post-depositional disturbance at the site. The distribution of vessel forms between the lodge and the fort at Oudepost fails to reveal any differences in activity in these areas of the site, as a result of the dominance of beverage storage and distribution of *bartmannen* and plain jugs in the collection as a whole (Table 6.6).

While few fragments allowed for measurement, those that did illustrated a range of jug sizes at the site, with smaller and more individually sized bottles prevalent. Measurable footrings (n=5) ranged in diameter from the smallest at 65 mm to the largest at 105 mm, with three measuring 90 mm each. A second small jug is reflected in a vessel with a body diameter of 90 mm, and a third in a vessel with a total height of only 115 mm. Clearly some larger, possible storage or transport, vessels were also present, as evidenced by a vessel with neck fragments measuring 55 mm in diameter.

The source of some stoneware is equivocal, in that jugs might have come to Oudepost from passing ships and/or as official provisioning from the Cape settlement. Unlike the coarse earthenwares that are not mentioned in lists of provisions sent from the Cape settlement to Oudepost, there is an indirect reference to flasks and bottles in the listings of vinegar, olive oil, arrack, and brandy sent to the post (VOC 4004). Although we cannot know if these were glass or stoneware containers, we should bear both possibilities in mind.

Interpretations

The European stoneware collections from the Castle sites of the Van der Stel Moat (M90) and the Old Granary (F2), and Oudepost I reveal little in terms of chronologically diagnostic material, though they do highlight a contrast between the Cape and the VOC homeland of the United Provinces. One of the striking characteristics of the Cape stoneware collections compared with domestic assemblages from the Netherlands is the dominance of liquid—primarily beverage—transport, storage, and potentially drinking vessels, with Rhenish jugs, including *bartmannen*, constituting around 74-87% of the collections (Tables 6.7, 6.8). Such jugs were used primarily for the transport and storage of ales, wines, and other liquors, with smaller sizes used for oils or higher alcohol spirits like brandy and gin (Schaefer 1994: 226, see

Table 6.7. Stoneware vessel type distribution in all sites (MNV)

Vessel Type	**Site**					
	M90		**F2**		**OPI**	
	Nos.	**%**	**Nos.**	**%**	**Nos.**	**%**
Rhenish Brown Salt-Glazed	56	75.7	20	87.0	32	74.4
Westerwald-type	9	12.1	3	13.0	7	16.3
British	3	4.1	-	-	3	7.0
Unprovenanced	6	8.1	-	-	1	2.3
Total	74	100.0	23	100.0	43	100.0

Table 6.8. Stoneware vessel form distribution in all sites (MNV)

Vessel Form	**Site**					
	M90		**F2**		**OPI**	
	Nos.	**%**	**Nos.**	**%**	**Nos.**	**%**
Bartmann	12	16.2	2	8.7	11	20.4
Jug	38	51.3	18	78.3	32	59.3
Mug/Tankard	1	1.4	-	-	1	1.8
Pitcher	1	1.4	-	-	2	3.7
Jar/Pot	-	-	1	4.3	5	9.3
Water Bottle	2	2.7	-	-	-	-
Marble	4	5.4	-	-	-	-
Blacking Bottle	2	2.7	-	-	-	-
Crucible?	2	2.7	-	-	-	-
Bowl/Cup	-	-	-	-	2	3.7
Inkwell	-	-	-	-	1	1.8
Undiagnostic	12	16.2	2	8.7	-	-
Total	74	100.0	23	100.0	54	100.0

also Weijs et al. 1970: 681, 683). Smaller vessels could also store medicines and volatile liquid chemicals like mercury (Gaimster 1997: 110, 117).

Measurements of Rhenish jugs from the Castle Moat and Oudepost I collections appear to reflect a range of jug sizes, from those smaller vessels used for transport and storage of spirits and oils and possibly reused as personal drinking vessels to larger vessels clearly intended for transport and storage of quantities of beverages. The Old Granary (F2) assemblage did not include any measurable rim, body, or base sherds. Clearly, the larger size dominates the Castle Moat assemblage. This echoes the previous findings of large utilitarian coarse earthenware cooking pots in the collection, likely reflecting the refuse of provisioning activities for large numbers of people at the Castle (Jordan 2000).

The use of these jugs as decanters in European taverns is central to interpretations of their presence at the Cape (see Thwaite 1973). As early as 1656, the VOC allowed the opening of *tapjens* or inns at the Cape, earning the place its soubriquet, 'Tavern of the Seas.' These public houses distributed alcohol purchased from the Company at fixed prices, collecting it from the Company's warehouses (Groenewald 2004: 4-5). While there was no specific mention of stoneware in the examined records, such as Mentzel's 1785 *Description of the Cape of Good Hope*, importation of beer and distilled brandy surely brought Rhenish jugs to the Cape (1925: 38). It seems likely that stoneware in all sizes was in use by both tappers and patrons of the inns, and even the smaller jugs likely played a role in situations such as that of the wine merchant Elbert Diemer, who had been allowed to sell *vivres*—including vinegar and oil—as early as 1662 (Groenewald 2004: 16 no. 52). While replaced in England by glass bottles after the development of that industry in the mid-17th century (Noël Hume 2001: 118, 166), glass was not locally manufactured at the Cape until the late 19th century (Abrahams 1987: 2, 13; Lastovica 1990: 51). The persistence of Rhenish jugs in our sites probably reflects this, and reveals not only their durability and reusability as ale and wine containers but also the intimate links between the VOC and continental Europe.

The limited variation found in the Cape collections contrasts markedly with the variety of elaborately decorated forms and variety of serving vessels produced in Germany and used throughout Europe and reflects a far more utilitarian use of stoneware at the Cape. The assemblages examined here include simply decorated forms at the utilitarian end of a ceramic spectrum that, in Europe, might include such a diversity of forms as mustard pots, salt pots, chamber pots, and elaborately decorated drinking vessels. While in Amsterdam, Westerwald dominated salt-glazed stoneware assemblages from the last quarter of the 17th century on, at the Cape, Rhenish stonewares remained dominant (Gaimster 1997: 56). This finding echoes that at the Parade site adjacent to the Castle. The majority of stoneware refuse from this once open area where the VOC garrison assembled consists of beverage transport, storage, and/or serving vessels (Abrahams-Willis 1998: 49). Other utilitarian forms such as chamber pots, porringers, and larger storage jars are not present in any of the collections analyzed. Interestingly, the Rhenish stoneware centers of Cologne and Frechen also made cylindrical *pinte* steins in brown salt-glazed stoneware, though none were apparent in any of the collections examined (Vogt 1993: 2). This suggests that the Cape collections reflect an emphasis on liquid storage and transport, as well as reuse during their lifespan at the Cape.

Smaller numbers of other vessels in each collection reflect more individual use, in the form of Westerwald-type drinking vessels or small pots, and other smaller forms like pots, jars, and bowls—primarily of British manufacture—as well as non-kitchen forms like marbles. Westerwald vessels constitute only a small percentage of these three assemblages. Disregarding the unidentified forms, the Westerwald vessels from these collections consist of small volume bulbous jugs, jars, pitchers, mugs, or tankards, and an inkwell. Only two definite mugs or tankards were found in all of the examined collections (M90 EST 29 and OPI EST 3), and both were Westerwald-type ware. While the vessels were rather fragmentary, there was no indication on the recovered sherds that hinged pewter lids were attached to these vessels as was common in Europe (Schaefer 1994: 220). Disregarding the small numbers in F2, Westerwald products are almost twice as numerous at Oudepost as in the Moat deposit. The presence of monochrome products dating back to 1675 at Oudepost may reflect the occupation of the site before the Moat deposit accumulated. The diversity of the vessels here, in contrast to the other sites examined, may be the result of Oudepost's remote occupants trading for individual pieces from passing ships.

The Westerwald vessels excavated at the Cape are most similar to the utilitarian vessels excavated at sites like the 18th-century Oostenburgermiddenstraat (1708-1805) (Baart et al. 1986). These vessels also show simple impressed and incised decoration, often floral, surrounded by thickly applied cobalt as well as cobalt applied in neck and base cordons. The schematic incised, cobalt-filled decoration on most of the recovered Westerwald vessels excavated at the Cape is, along with stamped and *knibiswood* mold-pressed decoration, reflective of 18th -century products, in contrast to the applied relief decorations used in the 16th and 17th centuries (Gaimster 1997: 252, Vogt 1993: 3).

The vessel forms from Oostenburgermiddenstraat, however, contrast with the relatively homogeneous Cape stoneware collections in the variety of forms that are present at this major residential occupation site. According to Baart et al., Westerwald vessels are present at Oostenburgermiddenstraat in such forms as milk cans, salt pots, and chamber pots, with German stoneware having lost the battle for use as tableware to Chinese porcelain and Delft faience by the 18th century (1986: 97). The Cape assemblages examined, however, include neither general tableware nor these specialized Westerwald forms. Instead, German stoneware is present predominantly as a highly limited suite of beverage service vessels.

On contemporary English and American sites, the mid-18th century witnessed a rise in English refined earthenwares and salt-glazed stonewares, with the exception of storage and sanitary vessels. The relative absence of British stonewares in contemporary Cape Town may reflect the earlier terminal date for these collections but is also reflective of the Cape's remaining trade and political ties to the waning Dutch East India Company in contrast to the increasing British influence in other areas of the world.

Dated shipwrecks provide important dating information about the Cape stoneware. The *Batavia* (1629) carried an estimated 117 *bartmann* jugs, and although it predates the Cape settlement, it indicates something about the early date and shipment of these forms (Green 1989: 125). The *Vergulde Draeck* (1656) collections do not have the earlier heraldic medallions that predominated on the *Batavia*, but they do feature a large number of rose-crown-heart medallions like those seen in Cape collections (Green 1977, 1989: 131). The *Avondster* (1659), lost at Galle on the coast of Sri Lanka on way to India, also had *bartmann* jugs on board, with a range of mask styles and qualities (Maritime Archaeology Unit of Sri Lanka 2003). The 1650s wreck of the *Monte Cristi*, like the *Avondster* (built by the British but likely sailing as a Dutch vessel), also indicates that Rhenish stoneware was "…a major element of the ship's cargo" (Lessman 1997: iv). Finally, the *Zeewijk* (1727) and the *Amsterdam* (1749), sailing for Batavia, also carried *bartmann*en, indicating these simple stoneware pots were still working their way around the world well into the 18th century (Marsden 1974, Maritime Archaeology Unit of Sri Lanka 2003).

Decorated vessels like *bartmann* jugs may appear to us across the centuries as inherently more valuable than plain Rhenish jugs. Their original value, however, related more to their contents and their utility as reusable vessels, especially in a locale like the Cape where impermeable stonewares could not be produced and where their contents arriving on ships from Europe were likely as important as, if not more than, the ceramic vessels themselves. As archaeologists, we sometimes forget that the small fragments we retrieve from the ground were not *objets d'art* but rather the very vessels through which everyday life was enacted. The simple Rhenish jugs—with or without masks, medallions, and rosettes—are a continuation of a European potting tradition long pre-dating the Dutch East India Company, yet tying that global power into a mercantile-era world that had yet to conceptualize the kind and force of changes that would be seen at the southern tip of Africa, as elsewhere, at the turn of the 19th century.

The continuing use of Rhenish stonewares at the 18th -century Cape reflects not only the VOC's ties to continental European trade systems but also its exportation of pre-industrial goods throughout its mercantile network. The signature of stoneware at the Cape places these sites firmly within the VOC's familiar world, one that had endured for two centuries in places around the globe—a world that would, just decades later, change irrevocably with the growth of British industrial and naval power, creating new colonies over old and changing the face of the Cape settlement's material culture.

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Notes

1. *Bartmann*, or bearded man, jugs have applied bearded faces or masks on the neck, and sometimes have applied medallions of various styles at or above their widest circumference. *Bartmann* jugs have historically been referred to as 'Bellarmine' (1542-1621) jugs after Cardinal Robert Bellarmino. However, as production of these jugs began when the cardinal was still in his youth, most researchers have moved to the more descriptive term *bartmann*.

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CHAPTER 7

Tin-Glazed, Refined, and Industrial Earthenwares from VOC Sites at the Cape

Carmel Schrire and Jane Klose

Tin-Glazed Wares

Introduction

Tin-glazed earthenware is a twice-fired, low-fired earthenware. Its pale body was easily masked with tin-glaze and was occasionally sealed with a final coating of transparent lead glaze that intensified the decoration. It originated in the Middle East in the early 9th century and spread to Western Europe. It became a luxury ceramic in northwest Europe at the end of the 15th century (Charleston 1968) and was displaced in the 18th century by Chinese porcelain and English refined earthenwares (Gaimster 1997: 1-3).

Wares may be divided into majolica *(maiolica)* and faience (fayence). Majolica was produced in Italy in the 16th century and spread to northwest Europe, Antwerp, France, the Netherlands, and England (Barker and Majewski 2006: 210-212). The earliest Netherlands ware—'Dutch majolica'—was produced in the mid-16th century by Italian potters working in Amsterdam. It had white tin-glaze on the upper surface and transparent lead glaze on the lower one. These vessels were first decorated with Italian-style motifs and Dutch folk-patterns; later, European porcelain decorative styles, including Chinese Kraak-style wares, became popular (Klose 2007: 31-32). Faience (also called '*Hollants porceleyne*') started production around 1620 when Dutch potters, responding to the demand for imported, costly Chinese porcelain, produced a finer, thinner ware, with tin-glaze on both surfaces. Labeled 'Dutch fayence' in Europe and often referred to as 'delft' in America, it displaced the coarser majolicas in most of the Netherlands by the mid-17th century (Stodel 1993; Wilcoxen 1987: 57-71). Although it derived from and originally resembled majolica, from the mid-17th century on it was predominantly decorated in the style of blue and white and enameled Chinese- and Japanese-style wares (Stodel 1993). Dutch tin-glazed ware production expanded following the shortage of Chinese export wares from the late 1640s until around 1680. While wealthy people probably continued to buy expensive Japanese porcelain (Jörg 1993: 194), tin-glazed wares, being less expensive, provided a status commodity for less wealthy customers (Gaimster 1997: 1). The delicate and beautiful Dutch tin-glazed wares found an appreciative market in Japan, where they were favored in the tea ceremony and preserved as heirlooms (Klose 2007: 32; Nishida 1987: ii-iv).

Sites

Tin-glazed wares occur in small numbers in Cape collections dating from 1630 to the 19th century. The earliest collections are Portuguese wares recovered from the shipwreck of the *São Gonçalo* (1630) (Klose 2007: 32, 135; Klose n.d.). They also appear in a tightly dated context on the *Bennebroek* (1713) (Klose 2007: 32). The contexts of the collections described in the following sections appear in Chapter 2 and in the chapters on other ceramics. Catalogs and color images of some figures appear in the enclosed CD. The scale used for all artifacts is calibrated in one centimeter increments.

Castle: Van der Stel Moat (M90)

The Moat collection of tin-glazed earthenware contains 70 sherds with a MNV of 19, distributed in small numbers throughout the deposit (Table 7.1). Most are sourced to Europe, with three from the Netherlands classifiable as 'Dutch fayence' (A1-TEW-02, B-TEW-06, and C-TEW-04). Forms

Carmel Schrire and Jane Klose, "Tin-Glazed, Refined, and Industrial Earthenwares from VOC Sites at the Cape" in *Historical Archaeology in South Africa: Material Culture of the Dutch East India Company at the Cape,* pp. 181–185. © 2014 Left Coast Press, Inc. All rights reserved.

include cups, saucer, jar/pots, dishes, and a lid. Most vessels have buff and cream chalky bodies and are relatively thickly-potted with a thick, white tin-glaze that sometimes has a pale blue hue. Distinctive shell-shaped lobed dishes or '*schulpschotels*' (A1-TEW-02, B-TEW-06, C-TEW-04) (Baart et al. 1986: 98 Pl. 12, top, far rt.; Baart et al. 1990/2: 25 afb 40a, b) are similar to an Italian '*plooischotel*' (Bult et al. 1992: IHE B1-11). Functions include food service in cups and dishes and drug storage in apothecary jars (SF-TEW-04) and *albarelli* (A2-TEW-06, 08). Decorations are mainly blue and white lines and flowers (A2-TEW-01, 02; B-TEW-01) (Figures 7.1, 7.2) with one Chinoiserie design (SF-TEW-01). There are five small sherds with polychrome decoration in green, red and yellow-gold floral motifs (SF-TEW-05, A2-TEW-05, B-TEW-05).

Table 7.1. Van der Stel Moat (M90): Tin-glazed earthenware distribution by Level (sherds and MNV)

Level	Sherds		MNV	
	Nos.	%	Nos.	%
SF	5	7.1	4	21.0
A1	4	5.7	2	10.5
A2	27	38.6	6	31.6
B	19	27.1	3	15.8
C	15	21.4	4	21.0
Total	70	99.9	19	99.9

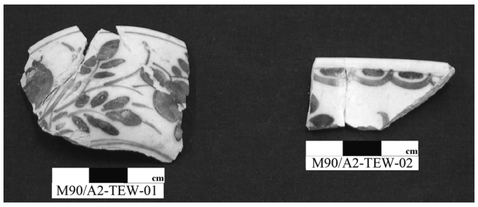

Figure 7.1. Tin-glazed Earthenware from the Castle Moat (M90) excavation, showing decorated cup (A2-TEW-01) and dish (A2-TEW-02) fragments. Scale in cm. (Photo C. Schrire)

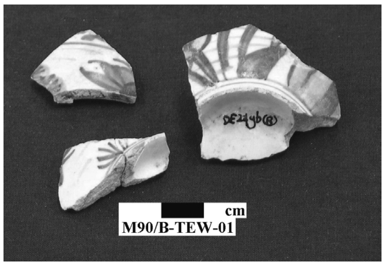

Figure 7.2. Tin-glazed Earthenware from the Castle Moat (M90) excavation, showing decorated cup (B-TEW-01). Scale in cm. (Photo C. Schrire)

Castle: Old Granary (F2)

The F2 collection is similar to that described in the preceding section. It contains 57 sherds distributed throughout the deposit with an MNV of 19 (Table 7.2). There is a marked dip in Phase 5 followed by a recovery in Phase 7, but the numbers are too small to signify.

Table 7.2. Old Granary (F2): Tin-glazed earthenware distribution by Phase (sherds and MNV)

Phase	Sherds		MNV	
	Nos.	%	Nos.	%
7	27	47.4	4	21.0
5	1	1.8	1	5.3
4	5	8.8	4	21.0
3	12	21.0	6	31.6
1	12	21.0	4	21.0
Total	57	100.0	19	99.9

Most vessels are European with two specifically attributed to the Netherlands (Ph7-TEW-01, 05). Forms include plates, dishes, dish/plates and jar/pots. They have thick, white and cream glazes, one with pink overtones (Ph3-TEW-03) and are classified as 'Dutch fayence.' Some resemble vessels found in the Moat, including a lobed '*schulpschotel*' or '*plooischotel*' (Ph7-TEW-01) (Baart et al. 1986: 98, Pl. 12, top, far rt.; Baart et al.1990/2: 117-118, Fig. 2b/4; Bult et al. 1992: IHE-B1-11), apothecary jars (Ph1-TEW-02, 03, 04), and an *albarello* (Ph3-TEW-02). Decorations are mainly blue and white with lines and flowers (Ph7-TEW-05, Ph1-TEW-03, 04) (Figure 7.3).

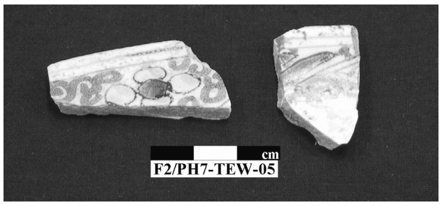

Figure 7.3. Tin-glazed Earthenware from the Old Granary (F2) excavation, showing decorated plate (Ph7-TEW-05). Scale in cm. (Photo C. Schrire)

Oudepost I (OPI)

This collection contains 129 sherds with an MNV of 8 (Table 7.3). The apparent predominance of sherds in the lodge does not necessarily confirm the preparation and service of food there because the counts emanate almost entirely from only two broken plates. They are concentrated in the lower levels with only one sherd in the latest level. Sourcing divides the vessels equally between Europe and the Netherlands. Most subscribe to the definition of 'Dutch fayence,' but one abraded example might be majolica (TEW-07) (Figure 7.4). It has a reddish-brown slip or glaze outside and a white glaze with blue painted flowers and leaves inside. Forms include plates, bowls, dishes, a cup, and a porringer (TEW-03) (Figure 7.5), all of which were used for food service.

Discussion

Tin-glazed wares constitute a minor part of all ceramic collections at the Cape, with the MNV count ranging from 11.7% in the Old Granary (F2) to 2.2% at Oudepost and a mere 1.3% in the Moat (Table 7.4). Their frequency in the Old Granary deposit is similar to that found in the stone lodge built in 1698 in Mauritius (Floore and Jayasena 2010: 331-332). Although these wares drop off in the later level at Oudepost, they are evenly distributed throughout the Moat and the Old Granary (F2) sequences, suggesting that they continued to be present in small amounts at the Cape well into 18th century levels (Tables 7.1, 7.2).

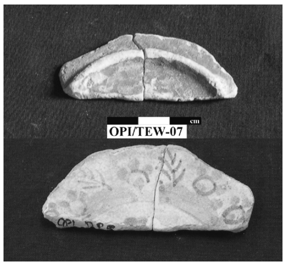

Figure 7.4. Tin-glazed Earthenware from the Oudepost I (OPI) excavation, showing possible majolica dish (TEW-07). Scale in cm. (Photo C. Schrire)

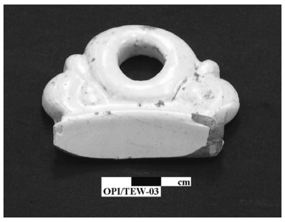

Figure 7.5. Tin-glazed Earthenware from the Oudepost I (OPI) excavation, showing porringer (TEW-03). Scale in cm. (Photo C. Schrire)

Table 7.3. Oudepost I (OPI): Tin-glazed earthenware distribution by Unit and Level (sherds), excluding 3 unprovenanced (NP) ones

Sherds	Unit			Total	Level			Total
	Fort	Lodge	DP		X	I	II	
Nos.	1	116	9	126	1	86	30	117
%	0.8	92.1	7.1	100.0	0.9	73.5	25.6	100.0

Table 7.4. Distribution of ceramic wares in VOC sites (MNV)

Ware	Site						Total	
	Moat (M90)		Old Granary (F2)		Oudepost I (OPI)			
	MNV	%	MNV	%	MNV	%	Nos.	%
Asian	1114	78.2	76	46.6	235	65.8	1425	73.3
CEW	206	14.5	43	26.4	65	18.2	314	16.1
EST	74	5.2	23	14.1	43	12.1	140	7.2
TEW	19	1.3	19	11.7	8	2.2	46	2.4
REW	12	0.8	2	1.2	6	1.7	20	1.0
TOTAL	1425	100.0	163	100.0	357	100.0	1945	100.0

The overall low incidence of tin-glazed wares at these Cape sites and in Mauritius contrasts markedly with that found on Dutch colonial sites of similar age in America (Bradley 2007: 96-97, 102-103; Huey 1991: 50-55; Janowitz et al. 1985; Wilcoxen 1984: 147-183). This disparity speaks strongly to the position of the Cape in the Dutch empire. Unlike West India Company stations in America, which were directly provisioned from home, the Cape lay on the VOC route to the east, and the Company found it cheaper and easier to provision it with stronger, more resilient Asian wares stored in their entrepôt at Batavia, than with more fragile wares from home.

Refined and Industrial Earthenwares

Introduction

Refined Industrial Earthenware in our collections includes refined glazed earthenwares made in Britain from the 1720s, as well as industrial wares that were mass produced in factories from the mid-18th century on.

Sites

The presence of these wares in our three VOC sites is discussed briefly in Chapter 2. They constitute a very tiny part of the collections and appear late in the sequences.

Castle: Van der Stel Moat (M90)

Refined earthenwares are restricted to the uppermost SF level (25 sherds, MNV 12) and the upper part of the underlying Level A1 (13 sherds, MNV 8) (D. Halkett, 2005, pers. comm.). Forms include plates, dishes, bowls, and a saucer. English wares include cream-colored ware, pearlware and whiteware that date from the late 18th to the early 20th century. Cream-colored wares include undecorated plates, two of which (SF-REW-01.1, A1-REW-01) have Royal pattern rims (Klose 2007: 136 Fig. 299; Noël Hume 2001: 116 Fig. 35 no. 5). Pearlwares dated from the late 18th to the mid-19th century and beyond include a small lidded bowl (A1-REW-05), one willow patterned vessel (A1-REW-06), and a plate with a green shell-edge (A1-REW-07) (Noël Hume 2001: 116 Fig. 35 no. 8). Whitewares from the 19th-20th century include dishes, bowls, plates, and saucer. They are mostly decorated with a printed underglaze blue, one with a Chinoiserie design (SF-REW-03) and one with a willow pattern (SF-REW-06) (Copeland 1999: 33; Klose 2007: 144-145 Figs. 347-349). One bowl (SF-REW-07) has a distinctive Spode mark (Figure 7.6) (Copeland 1997: 91), and one dish (SF-REW-11) has a molded foliate green glaze (Klose 2007: 158 Figs. 422-424).

Castle: Old Granary (F2)

Seven fragments of whiteware from two vessels appear in the uppermost Phase 7 dated to the 18th century.

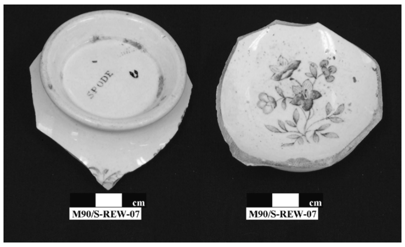

Figure 7.6. Refined Earthenware from the Castle Moat (M90) excavation, showing 18th century bowl with distinctive Spode mark (SF-REW-07). Scale in cm. (Photo C. Schrire)

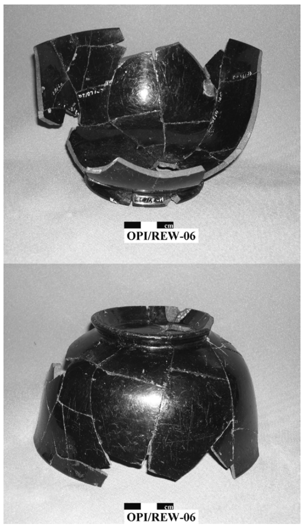

Figure 7.7. Refined Earthenware from the Oudepost I (OPI) excavation, showing Jackfield bowl (REW-06). Scale in cm. (Photo C. Schrire)

Oudepost I (OPI)

The collection includes 51 sherds with a MNV of six. Forms include plates, bowls, and a cup. Most come from a single Jackfield bowl (REW-06) (Figure 7.7). Jackfield is a red bodied black glazed refined earthenware, sometimes called 'Blackware,' that was produced in England between 1745 and 1790 (Noël Hume 2001: 122). The particular bowl stands about 80 mm high, with a rim diameter of 165 mm and a footring diameter of 80 mm. Jackfield ware date of manufacture postdates the occupation of this outpost (1669-1732), so that it must have been deposited after the site was abandoned. The sherds were found scattered inside and outside the lodge from the top to the bottom of the sandy deposit there, confirming post-depositional redistribution by weather, dune moles, and collectors (Schrire et al. 1990; Schrire et al. 1993; see Chapter 2).

There are three cream-colored wares, one of which (REW-02) is an English cup with a polychrome decoration that was probably applied in Holland around the 1780s (Noël Hume 1988, pers. comm.). There is also a single whiteware sherd (REW-04) and a stained, gold-printed fragment (REW-05).

Discussion

British refined wares began to appear regularly at Cape sites in the late 18th century, long after they became popular in Europe and North America. Their popularity at the Cape is directly linked to the final establishment of British rule after 1806 (Klose 2007: 52-60; Malan and Klose 2003). In keeping with this, the small collections of Refined/Industrial ware from our sites appear in the later levels of the Castle sites and in less secure provenances at Oudepost.

Acknowledgments

We are grateful to David Barker, formerly of the Potteries Museum, Stoke-on-Trent, and Nigel Wood, formerly of Westminster University, for instructive comments and help. Antonia Malan gave general encouragement throughout this work.

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CHAPTER 8

Glass Collections from VOC Sites at the Cape

Carmel Schrire

> *From the time that Jan van Riebeeck planted the Dutch flag there in 1652…the denizens of Cape Town were the hosts of the Tavern situated at the junction of the Indian and the Atlantic Oceans* (Boxer 1977: 242).

Introduction

The glass bottles and tableware from three VOC sites at the Cape include collections from two locales at the Castle of Good Hope, namely the Van der Stel Moat (M90) and the Old Granary (F2), as well one at the VOC outpost at Oudepost I (OPI) (see Chapter 2).

All the glass from the VOC sites at the Cape was imported from Europe. Bottle production started there in the late 16th century (Dumbrell 1992: 14) and soon reached commercial levels (Mehlman 1982: 123). Major glass production always demanded a great deal of fuel, and investors, seeing the vast, virgin forests of the New World, encouraged 'trials' of glass in Jamestown in 1608 (Kelso 2006: 183). In contrast to Virginia, forests were rapidly depleted at the colonial Cape, and glass production there did not begin until around 1879, long after the VOC ceded the Cape to the British, at a time when coal was easily available (Abrahams 1987: 2, 12; Lastovica 1990: 51).

The main components of our collections are bottles and tablewares. Glass bottles held alcoholic beverages like wine, gin, and brandy, as well as other liquids like vinegar and water. Judging by their abrasion, they were apparently curated and reused repeatedly. Demand for bottles increased at the Cape with the development of commercial wine production in the latter half of the 17th century, and in due course, fine wines from farms like Constantia, lying just south of the original Cape settlement, were shipped in cylindrical bottles imported from the United Provinces, Germany, and England, while inferior ones were exported in wooden casks (Abrahams 1987: 13).

Analytical Methods

The collections include bottles, tableware, and miscellaneous items. Catalogs and color images of some figures appear in the enclosed CD. The scale used for all artifacts is calibrated in one cm increments. Owing to the large amount of repetition in the analyses, only items specifically mentioned in the text, appear in the catalogs. They are discussed...(G12). They are discussed in the following sections, according to their level and object number in the Moat (A2-G 21), by Phase and object number in the Old Granary (Ph6-G 11), and by object number only at Oudepost I (G 12).

Bottles

The analysis uses a standard format appropriate to archaeological collections with their abundance of broken bases and necks (see Appendix E, Figure E.1), The most comprehensive study of VOC-era bottles available so far at the Cape describes material excavated on the Grand Parade at the site of the first Dutch fort (1652-74) (Abrahams 1987: 1-2). The author distinguishes onion from mallet bottles there, but I could not replicate her distinctions using the ratios of necks and bases (see Appendix E), probably because most of the bottles were too broken to signify their original shapes. Given that subsequent studies of colonial bottles at the Cape use the composite term 'onion/mallet' (Hart and Halkett 1993: 41-44), I have cautiously followed this convention here.

Carmel Schrire, "Glass Collections from VOC Sites at the Cape" in *Historical Archaeology in South Africa: Material Culture of the Dutch East India Company at the Cape*, pp. 187–203 © 2014 Left Coast Press, Inc. All rights reserved.

The categories are as follows:

1.1 Wine: Onion/Mallet
1.2 Wine: Case
1.3 Wine: Cylindrical
1.4 Wine: Beer
1.5 Storage: Carboy/*Karbas* (Afrikaans), Demijohn
1.6 Pharmaceutical

Tableware

Tableware includes goblets and beakers as follows:

2.1 Goblets (*Kelkglassen*)
    i. Molded
    ii. Heavy, drawn stem
    iii. Heavy, extended, angular stem
    iv. Baluster and Balustroid stem
    v. Bobbin stem
    vi. Pedestal, 'Silesian' stem
    vii. Fluted
    viii. Molded, stemless
    ix. *Roemers*

2.2 Beakers
    i. Plain
    ii. Molded
    iii. Wheel engraved
    iv. Screwtop
    v. Bossed/ meshworked

2.3 Goblet/beaker

Miscellaneous

This category includes finds not firmly classifiable as either bottles or tableware.

Analysis of Sites

Castle: Van der Stel Moat (M90)

The Van der Stel Moat was excavated in 1990 as part of a major research program under the direction of Martin Hall of the Archaeology Department at the University of Cape Town (see Chapter 2). Excavated collections were amalgamated into five basic levels, designated, from top to bottom, SF, A1, A2, B, and C, with unprovenanced fragments classified as 'NP' (Non Provenanced). The glass collection was originally sorted by Glenda Cox, whose notes constitute an invaluable guide to the collections (Cox 1993, n.d.).

1. Bottles

1.1 Bottles: Wine: Onion/Mallet

(i) Bases

There are 73 fragments from the bases of 56 bottles in Levels A1, A2, and B (Table 8.1). They are all olive green, with diameters ranging between 126 and 136 mm. Where the sides are sufficiently intact they are bulbous (A2- G 211), and those that seem to be straight-sided (A2-G 146, 171) are actually too broken to eliminate the possibility that they were bulbous (see Appendix E). Basal profiles range from high (A2-G 169) to low domed (A2-G 135, 155), with one conical exception (A1-G 61). Pontil marks are visible in nearly all specimens. One notable example (A1-G 61) has a cross at the apex of its conical dome (Figure 8.1), and another (A2-G 164) has a high domed basal profile with a dimpled mamelon.

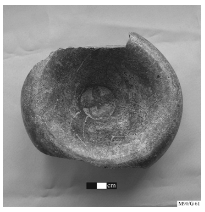

Figure 8.1. Onion/Mallet bottle from the Castle Moat (M90) excavation, showing cross on the underside (A1-G 61). Scale in cm. (Photo C. Schrire)

Table 8.1. Van der Stel Moat (M90): Bottle type distribution by Level (MNV)

Level	Bottle Type (MNV)											
	Onion/Mallet			Case				Cylindrical			Carboy	Pharm.
	Bases	Necks	Total	Intact	Bases	Necks	Total	Bases	Necks	Total	Total	Total
SF	-	5	5	-	-	-	-	10	6	10	-	-
A1	10	13	13	-	19	6	19	2	2	2	1	5
A2	41	47	47	1	21	15	22	-	-	- -	4	6
B	5	-	5	-	4	3	4	-	-	-	1	8
C	-	3	3	-	-	-	-	-	-	-	-	-
Total	56	68	68	1	44	24	45	12	8	12	6	19
%			45.3				30.0			8.0	4.0	12.7

(ii) Necks

There are 69 fragments from 68 bottles, and 24 separate fragments of string rims (Table 8.1). The necks are the same color as the bases. Lengths vary from 35 to 83 mm with a mean of 70 mm. There are only shorter ones in the small surface collection (SF-G 1, 2), with more variation visible below (cf. A1-G 48, 58), where both short (A2-G 87, 88) and long necks (A2-G 91, 107, 114) are found. String rims are visible on the necks of 64 bottles, and cross-sections include 3% rounded, 45% rounded/flattened, and 52% 'V'-tooled forms. In addition, there are 24 separate string rim fragments that include 54% rounded/flattened and 46% 'V'- tooled forms. Where shoulders are present, these bottles strongly resemble bulbous onion forms (A1-G 49, 50, A2-G 105, 110), and only one (A2-G 127) has the straighter sides suggestive of a mallet bottle (Figure 8.2; see Abrahams 1987: 14 Pl. 5).

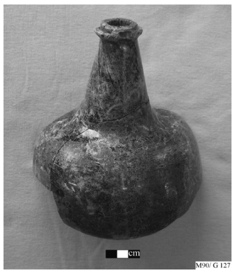

Figure 8.2. Bottle from the Castle Moat (M90) excavation with straight sides suggestive of a mallet (A2-G 127). Scale in cm. (Photo C. Schrire)

1.2 Bottles: Wine: Case

(i) Almost intact

One small case bottle (A2-G 323) is made up of 16 pale green fragments. The base is 50 mm^2 and the neck is broken. It is similar in size to a Dutch-Belgian example dated to 1720-50 (Van den Bossche 2001: 131 no. 1).

(ii) Bases

There are 50 fragments representing the bases of 44 square case bottles (Table 8.1). They are pale green to olive green, and average 100 mm^2 in size. Sides are straight (A2-G 191) or slightly curved (A2-G 198). Almost all have shallow kicks, pontil marks, and flat, domed profiles (A1-G 77, 82), except for one (A2-G 206) that is completely flat.

(iii) Necks

There are 26 fragments from 24 bottles whose lengths are markedly shorter than onion/mallet forms (Table 8.1). Some are everted (A2-G 481) and plain, others are straight with rounded trails (A2-G 482) or 'V'-tooled string rims. Variations are consistent with early 18th century forms (Van den Bossche 2001: 131, 132 no. 3). Notable here is A2-G 210a, a large pale green bottle with a flared neck ringed by the remnants of a metal cap (Figure 8.3; cf. Noël Hume 2001: 69).

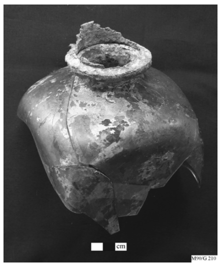

Figure 8.3. Case bottle from the Castle Moat (M90) excavation with remnants of a metal cap (A2-G 210a). Scale in cm. (Photo C. Schrire)

(iv) Cap

One metal cap (A2-G 210b) has a small amount of glass adhering to the rim (Noël Hume 2001: 69).

1.3 Bottles: Wine: Cylindrical

(i) Bases

There are 18 fragments from a total of 12 bottles that come mostly from the uppermost, surface level (Table 8.1). They include half bottles with bases 62 mm in diameter (SF-G 15, 16) and full ones with bases 82 mm in diameter (SF-G 18). Four are dark green, with steep conical or high, rounded conical basal profiles. A light green, blown bottle is present, with a marked pontil scar (A1-G 276). Notable here for possible future identification, is SF-G 15, a molded half bottle with a smoothed pontil scar and a distinctive seal near the base, reading 'I G HOFFMANN' (Figure 8.4; cf. Dumbrell 1992: 272).

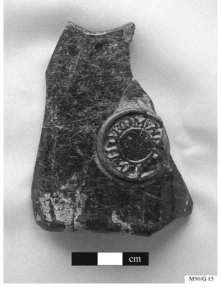

Figure 8.4. Cylindrical, molded half bottle from the Castle Moat (M90) excavation with seal reading 'I G HOFFMANN' (SF-G 15). Scale in cm. (Photo C. Schrire)

(ii) Necks

There are ten neck fragments from eight bottles (Table 8.1). Only one (SF-G 7) retains its full length of 70 mm, and being molded, may date after 1821, when a patent to make these three-piece molded bottles was granted to Henry Ricketts of the Phoenix Glass Works in Bristol England (Jones 1983: 167). Dates around 1830-40 may be ascribed to SF-G 10 (Dumbrell 1992: 115b; Noël Hume 2001: 68 Fig. 13). A later date around 1877 may fit SF-G 12 (Dumbrell 1992: 118 Pl. 44).

1.4 Bottles: Wine: Beer

Two fragments of modern beer bottles appear in the uppermost SF level.

1.5 Bottles: Storage Carboy/Karbas

(i) Bases

There are three fragments from two bases, both pale turquoise, with diameters of 250 mm, low domes, and no visible pontil marks.

(ii) Necks

There are five neck fragments from four bottles. They are all pale turquoise, with cracked-off lips and rounded trail string rims (A2-G 280, 281).

1.6 Bottles: Pharmaceutical

There are 35 fragments, nine from Level A1, 17 from A2, and nine from B, from a total minimum number of 19 bottles.

(i) Almost intact

This is a blue bottle is made up of five fragments (A2-G 284). The base is rectangular, 40 x 27 mm, with a pontil mark and a low domed basal profile.

(ii) Bases

There are 12 bases, including A1-G 248, 269and B-G 334, 348, 350. They range in color from clear to light and olive green. Most are circular in shape, except for a square or rectangular example (A1-G 274). Pontil scars on five confirm that they were blown, and the high domed conical basal profiles on six bottles, including A1-G 248, 269, resemble those dated to 1660-75 (Noël Hume 2001: 72-73, nos. 7,8).

(iii) Necks

There are 10 necks, including A1-G 268, 270, 272; A2-G 324-326, and B-G 336. They range in color from clear to light, dark and olive green and in measurable length from 12 to 25 mm. A 17th-18th century date may be ascribed to many specimens on the basis of the flared and flattened lips visible in several specimens, including A1-G 270, A2-G 326 and B-G 336 (Noël Hume 1976: 42; Noël Hume 2001: 72-73 nos. 8, 10, 12), as well as on everted and flared necks A1-G 268 (Noël Hume 2001: 72-73 nos. 3-6).

1.7 Bottles: Distribution

Table 8.1 shows the distribution of identifiable bottles by MNV in the Moat. They predominate in Levels A1 and A2, except for cylindrical ones that appear late in the sequence, in the upper levels, and are most numerous in the surface one (SF). The most popular forms are onion/mallet and case, with onion/mallet predominating. The numerical distribution of small fragments (Table 8.2) confirms the late appearance of cylindrical bottles in the Moat sequence and shows that heavier, more resilient onion/mallet forms broke into fewer, but heavier, fragments than the case ones.

2. Tableware

2.1 Tableware: Goblets (Kelkglassen)

(i) Molded

A single example from the uppermost level (SF-G 41) is a molded base with fluting on the bowl, probably dating to the 19th century.

(ii) Heavy, drawn stem

Six goblets are represented by seven fragments. Four have intact stems ranging in length from 60 to 80 mm. Two (A1-G 251, A2-G 307) have torpedo tears and trumpet bowls, and one (A2-G 293) has a trumpet bowl and no tear. Similar goblets are broadly ascribed to the 18th century (Henkes 1994: 266 no. 183b), and more specifically dated to the early 18th century (Clevis et al. 1990: 228 no. 221; Bitter et al. 1995: 168 nos. 177, 178; Thijssen 1991: 151 no. 336), to the mid-18th century from 1725 to 1760 (Noël Hume 2001: 191 no. XVII), and between 1720 and 1750 (Noël Hume 1976: 18 no. 2). Hartshorne dates the torpedo tear earlier than the

Table 8.2. Van der Stel Moat (M90): Bottle type distribution by Level (sherds and weight)

Level	**Bottle Type**						**Total**	
	Onion/Mallet		**Case**		**Cylindrical**			
	Nos.	**Gms.**	**Nos.**	**Gms.**	**Nos.**	**Gms.**	**Nos.**	**Gms.**
SF	25	94	89	319	238	1471	352	1884
A1	653	3408	2297	5664	43	161	2993	9233
A2	1974	18,180	3119	9881			5093	28061
B	381	2749	1156	2046	-	-	1537	4795
C	196	693	340	498	-	-	536	1191
Total	3229	25124	7001	18408	281	1632	10511	45164
%	30.7	55.6	66.7	40.8	2.6	3.6	100.0	100.0

mid-18th century, at which time it is said to have shrunk in England (1968: 267). Later examples dated between 1742 and 1805 are thought to signify conservatism in tavern wares (Laan 2003: 73 no. 44, 199-200). Two fragments from similar goblets appear at the Cape site of Elsenburg, where they are dated to the second quarter of the 18th century (Hart and Halkett 1993: 51, nos. 2, 6). Finally, A2-G 305 has a 'cigar' stem pinched in at either end, with a domed foot, and is dated between 1720 and 1750 (Noël Hume 1976: 18 Fig. 8, no. 5; Bly Straube 2004, pers. comm.) (Figure 8.5).

(iii) Heavy, extended, angular stem

There are five stems here. The most complete (A2-G 297) is 80 mm long, with a round basal knop, central tears in the base of the bowl, stem, and knop, and a possible trumpet bowl. It has a domed foot. Stems similar to A2-G 294, 295 are dated to 1700-20 (Noël Hume 1976: 16, Fig. 4, no. 4) (Figure 8.6).

(iv) Baluster and Balustroid stem

There are 16 fragments from 14 stems (see Barrington Haynes 1959: 193-199). The only intact one is 42 mm long (A1-G 252). The characteristic inverted balusters come with (A2-G 296), or without central tears. Knops, placed at various intervals on the stem, include annular (SF-G 36, A1-G 252, A2-G 296), round (A1-G 277), and bladed knops (A2-G 373). Broken edges suggest that the bowls were trumpet-shaped (A2-G 296). Feet are conical (SF-G 36) (Barrington Haynes 1959: 199) and domed (A1-G 252), and some have folded rims (A2-G 373). Dates for goblets similar to A1-G 277 (Mehlman 1982: 98d; Noël Hume 1976: 17 no. 1), and to A2-G 296 (Barrington Haynes 1959, Pl. 626; Noël Hume 1976: 16 Fig. 4, no. 5) fall mainly in the early 18th century.

(v) Bobbin stem

There is one fragment (A2-G 304) of a bobbin or multi-knopped stem, similar to an example dated to around 1720 (Barrington Haynes 1959, Pl. 75d) (Figure 8.7).

(vi) Pedestal ('Silesian') stem

There are nine fragments with characteristic multi-sided stems that measure, where intact, between 55 and 62 mm in length (A2-G 302, 298). Some shoulders have molded diamonds (A1-G 249, A2-G 298, 300, 302) from which the stem occasionally descends in a twist (A2-G 298, 300). They have various shaped cross-sections, including quadrangular (A1-G 250), hexagonal (A1-G 249, A2-G 298, 300, 301), and octagonal (A2-G 302) (Figure 8.8). Seven have a central tear and knops. Bowls include rounded ovoid (A2-G 298, 300) and conical (A2-G 301) forms; feet, where present, are domed (A2-G 298, 302). A similar series is found at Oudepost I, with quadrangular (OPI-G 52) and hexagonal stemmed (OPI-G 53, 54) forms.

A sequence for these goblets has been posited on the

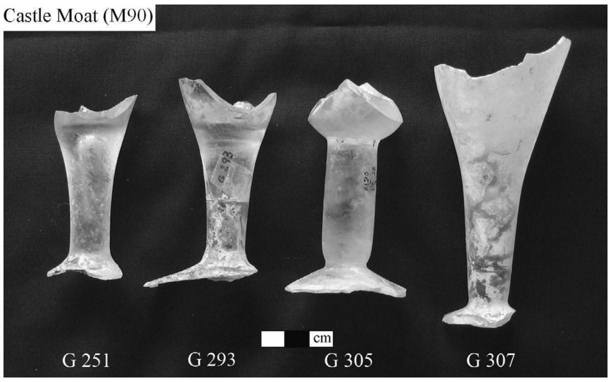

Figure 8.5. Heavy, drawn stemmed goblets from the Castle Moat (M90) excavation, showing torpedo tears and trumpet bowls (A1-G 251, A2-G 307), no torpedo tear (A2-G 293), and a 'cigar'stem (A2-G 305). Scale in cm. (Photo C. Schrire).

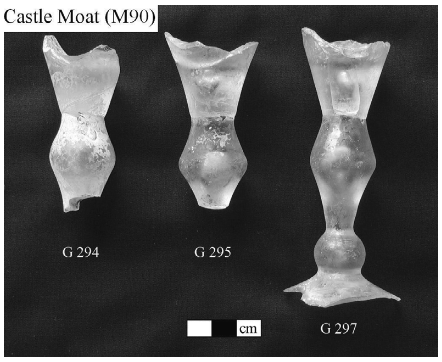

Figure 8.6. Heavy, extended, angular stemmed goblets from the Castle Moat (M90) excavation (A2-G 294, 295, 297). Scale in cm. (Photo C. Schrire)

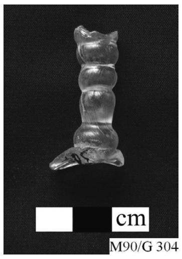

Figure 8.7. Goblet from the Castle Moat (M90) excavation with bobbin stem (A2-G 304). Scale in cm. (Photo C. Schrire)

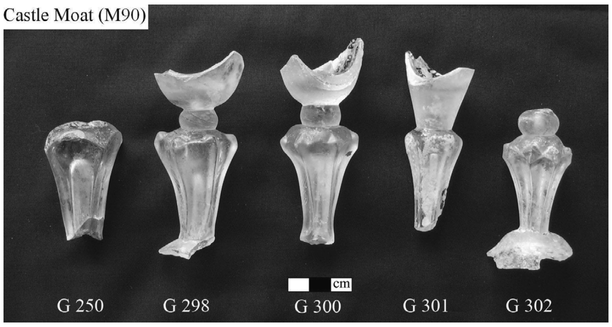

Figure 8.8. Pedestal 'Silesian' stemmed goblets from the Castle Moat (M90) excavation with quadrangular (A1-G 250), hexagonal (A2-G 298, 300, 301) and octagonal (A2-G 302) sectioned stems. Scale in cm. (Photo C. Schrire)

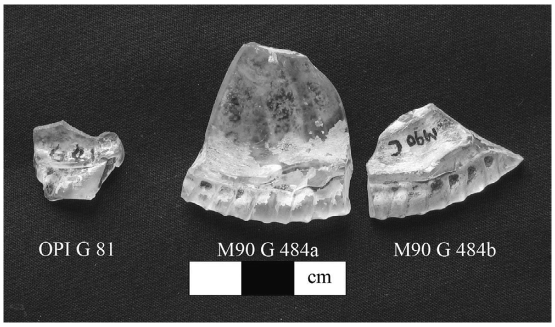

Figure 8.9. Molded, stemless goblet fragments from the Castle Moat (M90) excavation, showing domed foot (C-G 484a, b) similar to one from Oudepost I (G 81). Scale in cm. (Photo C. Schrire)

cross-section of the stem. They are thought to have first appeared in Hesse and western Germany and to have spread across Europe to England around 1714 (Crompton 1969: 110-115). The earliest form has a straight, quadrangular sectioned stem, as seen in A1-G 250, and is dated to the late 17th-early 18th century (Barrington Haynes 1959: Pl. 63b; Crompton 1969: 111; Henkes 1994: 265a; Noël Hume 1968: 28-29 nos. 38, 39; Mehlman 1982: 120). At the Cape itself, a quadrangular stem from the farm Elsenburg is dated to the 2nd quarter of the 18th century (Hart and Halkett 1993: 25, 51 no. 5). Hexagonal stems (A1-G 249; A2-G 298) are dated later in the early 18th century (Bickerton 2000: 29 no. 3; Crompton 1969: 111; Henkes 1994: 265b; cf. Noël Hume 1968: 28-29 nos. 34-37; Noël Hume 1976: 18 Fig. 7). One particular stem (A2-G 298) resembles an example dated 1742-1805 that was found in a Dutch tavern where glass styles are said to have continued in use for a long time (Laan 2003: 68 no. 31, 199-200). Octagonal stems (A2-G 302) are dated to the mid-18th century (Crompton 1969: 111; Elville 1961: 56 Pl. 37 no. 239; Henkes 1994: 265c; Mehlman 1982: 120-121).

(vii) Fluted

One example (C-G 370) has a possible trumpet bowl with fluting radiating out from its base, and is tentatively dated to the first half of the 17th century (Bly Straube 2004, pers. comm.).

(viii) Molded, stemless

Two examples (C-G 484a, b) each show a domed foot with molded fluting running diagonally along the border and with ribs on the underside. An identical fragment is present at Oudepost I (G 81). Such wares probably date earlier than the mid-18th century (Laan 2003: 74 no. 45) (Figure 8.9).

(ix) *Roemers*

There are 14 stems. Their full length is measurable in 12 cases, ranging from 27 to37 mm, with a mean of 31 mm. They range in color from dark to light green. One stem is plain (A2-G 309) but others (A2-G310-320) have rows of raspberry prunts. These goblets were popular for a considerable time, as evidenced by the similarity between A2-G 310 and one from a Dutch tavern dated between 1742 and 1805 (Laan 2003: 67 no. 30, 199-200).

2.2 Tableware: Beakers

(i) Plain

There are 13 fragments of bases whose diameters range from 35 to 70 mm. Illustrated examples include A1-G 263, 264 and A2-G 288, and are similar to ones dated to around 1700 (Henkes 1994: 248 no. 52.1).

(ii) Molded

A single example (SF-G 38) is a base fragment with vertical fluting, similar to one from a Dutch tavern (1745-1805) (Laan 2003: 76 no. 53, 199-200) (Figure 8.10).

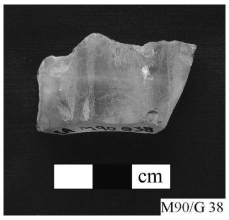

Figure 8.10. Molded beaker from the Castle Moat (M90) excavation with vertical fluting (SF-G 38). Scale in cm. (Photo C. Schrire)

(iii) Wheel engraved

There are numerous fragments of wheel engraved beakers. Where measurable, these beakers have basal diameters ranging from 40 to 60 mm, with a mean of 52 mm, and rim diameters from 60 to 90 mm, with a mean of 73 mm. Pontils, where visible, have been ground almost flat. Their most striking feature is the wide variety of wheel engraved and intaglio decoration, featuring lines, leaves, sheaves, plumes, and ovals (A1-G 399, 400, A2-G 413-416, 424, 464, 465). There is even a possible bird (A2-G 424). Three beakers (A1-G 401, A2-G 285, 286), are decorated with Chinoiserie ('psuedo Chinese') designs. The first, A2-G 285, has a stippled pagoda and tower (Figure 8.11). The second, A2-G 286, has engraved and stippled designs of a large horizontal flower (possibly a sunflower, aster, or chrysanthemum) and a pagoda-like structure that may even be a boat (Figure 8.12). They are similar to one from Oudepost I (G 37) (see Figure 8.20).

General similarities appear in a wide variety of engraved glass, but the specific Chinoiserie designs date to the 18th century, possibly pre-1760 (Bitter et al. 1997: 92 no. 276; Henkes 1994: 248 no. 52.3, 250 no. 52.10; Henkes and Veeckman 1999: 31 3rd on left, 66 no. 48, 67 no. 50).

(iv) Screwtop

There is a single example (A2-G 327), a top with a diameter of 36 mm and internal molded rings. Such beakers are called '*schroefdop*' or 'screwtop' and are dated to the 18th century (Henkes and Veeckman 1999: 73 no. 66; Bly Straube 2004, pers. comm.) (Figure 8.13).

(v) Bossed/Meshworked

Fragments of beakers all have molded and/or trailed glass bosses, lines, and prunts, reminiscent of glassware dated to the 16th-17th century in the Netherlands and elsewhere. Trailed, tear-shaped bosses on C-G 358 are similar to Netherlands material dated to 16th-17th century (Bitter et al. 1995: 162 no. 159; Clevis et al. 1990: 221 no. 203). Trailed bifurcating lines on A2-G 394 and C-G 364 are similar those found in beakers from the Netherlands in the 17th century (Henkes 1994: 252 nos. 53.1, 53.2) and from 1625-50 (Clevis et al.1990: 219 nos. 193,194). A clear prunt (C-G 368) resembles one found on a fragment at Oudepost (G 36) (see Figure 8.21), as well as those found on an 'unbreakable' beaker from Rhineland and Antwerp from around 1663 (Barrington-Haynes 1959: Pl. 23b; Henkes 1994: 261 no. 54.12). A striking fragment (NP-G 385a) is a molded sunburst from the base of a beaker similar to one dated 1625-75 (Bitter et al. 1995: 162 nos. 158,159; Clevis et al. 1990: 220 no. 199; Henkes 1994: 139 no. 31.1). Finally, A2-G 395 has vertical lines and resembles a beaker dated to about 1625-50 (Bitter et al. 1995: 162 no. 157; Clevis et al. 1990: 219 no. 193) (Figure 8.14).

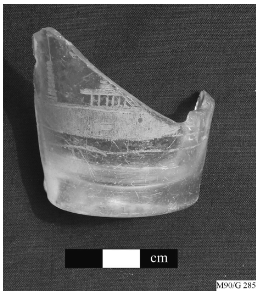

Figure 8.11. Wheel engraved beaker from the Castle Moat (M90) excavation with Chinoiserie design of a stippled pagoda and tower (A2-G 285). Scale in cm. (Photo C. Schrire)

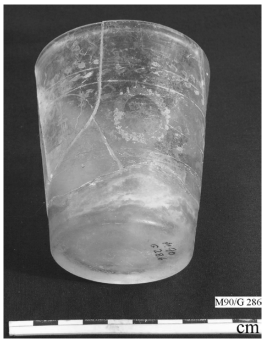

Figure 8.12. Wheel engraved beaker from the Castle Moat (M90) excavation with Chinoiserie design of a flower and pagoda or ?boat (A2-G 286). Scale in cm. (Photo C. Schrire)

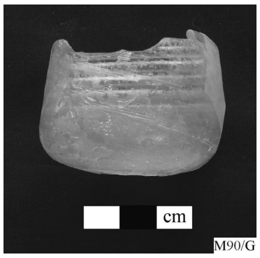

Figure 8.13. Screwtop beaker from the Castle Moat (M90) excavation (A2-G 327). Scale in cm. (Photo C. Schrire)

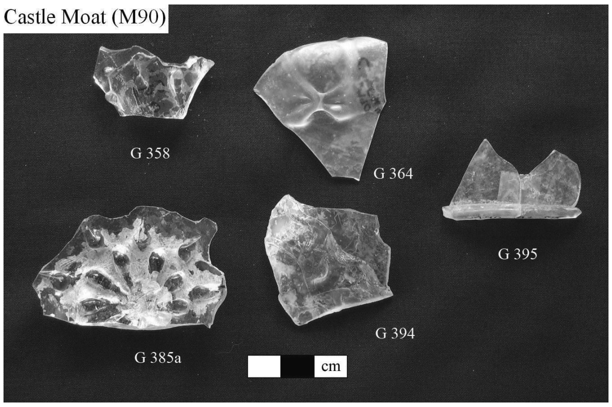

Figure 8.14. Bossed/Meshworked beakers from the Castle Moat (M90) excavation (C-G 358, 364, NP-G 385a, A2-G 394, 395). Scale in cm. (Photo C. Schrire)

Table 8.3. Van der Stel Moat (M90): Tableware type distribution (shards)

Level	Tableware (Nos)					Total
	Goblets		Beakers			
	Clear	*Roemers*	Wheel/Engraved	Bossed/meshworked	Other	
SF	6	-	-	-	4	10
A1	298	9	16	-	3	326
A2	546	110	82	10	6	754
B	25	10	4	-	-	39
C	136	10	1	8	-	155
NP	3	-	1	4	2	10
Total	1014	139	104	22	15	1294
%	78.4	10.7	8.0	1.7	1.2	100.0

2.3 Tableware: Distribution

All tableware fragments, including those specified in the preceding section, are listed in Table 8.3. In keeping with the distribution of bottles and other artifacts, most tableware is concentrated in Levels A1 and A2. The most popular form seems to be clear goblets that form 78.4% of the collection. Although bossed and meshworked beakers appear early in the sequence here, they continue into the younger level A2, suggesting that although they are dated early in Europe, these forms continued to circulate in VOC outstations well after their most popular usage abroad. The collection as a whole is typical of late 17th-18th century glass. These wares were made in various European countries, specifically the Netherlands, Germany, Belgium, and England, and then shipped to the Cape (Laan 2003).

3. Miscellaneous

There are eight fragments, including two clear tubes and a fragment of glass with a blue folded rim (C-G 372). Two items(A1-G 266 and A2-G 322) are reddish brown fragments, decorated with concentric swirls of white enamel that possibly came from an 18th century enameled flask (Bly Straube 2004, pers. comm.) (Figure 8.15).

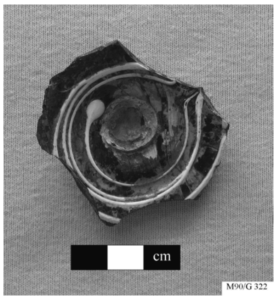

Figure 8.15. Miscellaneous fragment from the Castle Moat (M90) excavation suggestive of enameled flask (A2-G 322). Scale in cm. (Photo C. Schrire)

2. Castle: Old Granary (F2)

The Old Granary (F2) was excavated in 1988 by the Archaeology Contracts Office under the direction of Professor Martin Hall. It was a stratified deposit within the vault of an old structure against the Kat wall of the Castle (see Chapter 2). Its early strata, Phases 1-4, accumulated during the late 17th century, and the succeeding Phases 5-7 were probably deposited later (see Chapter 2, Table 2.4). All elements are small, and only one is deemed of sufficient interest to be listed in the illustrated catalog. Hall attributed the residues to slaves (1992: 389-390) but closer scrutiny suggests a series of secondary fills emanating from refuse heaps that had previously been exposed to predatory dogs and weathering (see Chapters 2, 3).

1. Bottles

1.1 Bottles: Wine: Onion/Mallet

(i) Neck

There is one fragment (NP-G 1), which is dark green, with a flattened lip.

1.2 Bottles: Wine: Case

(i) Base

There is one fragment (NP-G 2), dark green with a square base measuring 82 x 82 mm. It has a shallow kick, a pontil scar, and a domed profile.

(ii) Necks

There are eight fragments from eight bottles (Ph 7-G3-10), whose lengths range from 10 to 15 mm, all with everted necks.

Table 8.4. Old Granary (F2): Bottle type distribution by Phase (shards and weight)

Phase	Bottle Type					
	Onion/Mallet		Case		Other	
	Nos.	Gms.	Nos.	Gms.	Nos.	Gms.
7	11	183	102	197	37	100
5	-	-	133	220	31	108
4	-	-	33	119	372	239
3	19	129	161	709	100	351
2	-	-	26	20	-	-
1	3	9	67	249	78	43
Total	33	321	522	1514	618	841

1.3 Bottles: Storage (Carboy)

(i) Neck

There is one fragment (Ph7-G 11), aqua colored and similar to those found in the Moat (A2-G 280, 281).

1.4 Bottles: Distribution

Table 8.4 summarizes the distribution of bottle and other glass fragments (excluding tableware) in F2. Unlike the Moat and OPI, there are no cylindrical bottles here, a finding consistent with the early dating of most of this deposit (see Chapter 2).

2. Tableware

2.1 Tableware: Goblets (Kelkglassen)

(i) Baluster and Balustroid stem

There are three small fragments, one of which (Ph1-G 12) is clear glass with an angular- sectioned knop between the broken bowl and stem.

(ii) *Roemers*

There are 49 fragments of green glass, including prunts and stems.

2.2 Tableware: Beakers

(i) Molded

There are two fragments (Ph1-G 18) of an apparently modern tumbler.

(ii) Wheel engraved

There are four fragments, one of which (Ph1-G 13) has horizontal lines.

(iii) Bossed/Meshworked

There are five fragments of clear glass. One (Ph4-G 15) has a twisted ribbon decoration, and another (Ph4-G 14) includes five fragments with raspberry prunts that resemble specimens from the Moat (C-G 368) and Oudepost (G 36).

2.3 Tableware: Goblet/beaker

One notable fragment found here (Ph7-G 17) is the base of a goblet or beaker, with a diameter of ac. 25 mm, made of clear glass with an aqua ornamental loop. It is after the style of '*Façon de Venise*' (Bly Straube 2004, pers. comm.). This term denotes a kind of ornamental glass production that started in Venice, moved to the Low Countries around 1394 and then to England, where Venetians set up a glass industry in the mid 16th century (Hartshorne 1968: 140,148). Given its present context in a VOC Castle, this particular piece may derive from the Netherlands (Figure 8.16).

2.4 Tableware: Distribution

The fragments are listed in Table 8.5. The numbers are low but the variety is similar to that found at the other sites. Relative proportions, however, are different from those found in our largest collection from the Van der Stel Moat. This is particularly so in the case of bossed/meshworked beakers, which make up around 21% of the collection here as opposed to a mere 1.7% in the Moat and, as such, may confirm the relative antiquity of this form, as already discussed.

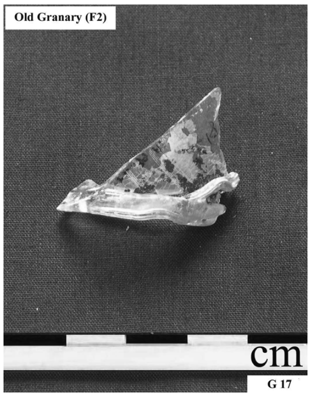

Figure 8.16. Base of goblet or beaker from the Old Granary (F2) excavation after the style of '*Façon de Venise*' (Ph7-G 17). Scale in cm. (Photo C. Schrire)

Table 8.5. Old Granary (F2): Tableware type distribution by Phase (shards)

Phase	Tableware (Nos)							
	Goblet		Beaker			Goblets and Beakers	Miscel.	Total
	Clear	*Roemers*	Molded	Wheel Engraved	Bossed/ meshworked			
7	2	17	2	-	6	1	14	42
5	1	-	-	-	-		12	13
4	24	19	-	2	17		8	70
3	7	11	-	-	13		2	33
1	13	2	-	2	1		1	19
Total	47	49	2	4	37	1	37	177
%	26.6	27.7	1.1	2.2	20.9	0.6	20.9	100.0

3. Oudepost I (OPI)

Oudepost I was an outpost of the VOC, situated on the shore of Langebaan lagoon, about 120 km north of the Castle. It functioned between 1669 and 1732 as a refreshment post for mercantile shipping. It was manned by four to ten men and provisioned officially from the Cape settlement and informally from passing ships. It was excavated by a team under my direction between 1984 and 1995. Various aspects of the work have been published since, including a chronological sequence based on the analysis of clay pipes (Schrire 1995; Schrire et al. 1990; see Chapter 2). The post was built just above a small beach and a rocky shore, and was divided into horizontal units around the lodge, fort, and an intertidal Dump (DP) on the waters' edge. Three vertical levels run from X to I to the oldest level II. Non Provenanced material is listed as 'NP' (Schrire et al. 1990, 1993; see Chapter 2)

A striking feature of the Oudepost glass collection is the paucity of large characteristic fragments in the excavated material. This is consistent with an observation that the site was a favorite haunt of bottle hunters who collected "…enough old Dutch bottles for a museum…" (Green 1970: 93). Sadly, we never retrieved any bottles from private collections, but we did get most of our best tablewares—now relegated to 'NP'—from them.

1. Bottles

1.1 Bottles: Wine: Onion/Mallet

(i) Whole bottle

There are 36 fragments found in the lodge that come from a single onion bottle, G 1. It is dark green, with a base diameter of 155 mm and stands about 183 mm high. It has a domed basal profile a short neck, a rounded trail string rim, and a cracked-off lip. Its well-worn base suggests that it broke after extensive re-use (Figure 8.17).

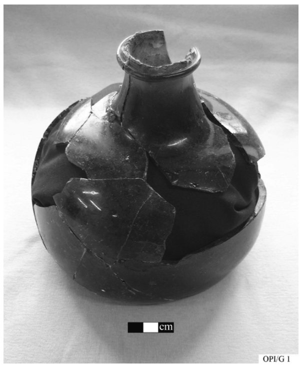

Figure 8.17. Onion bottle (G 1) from the Oudepost I (OPI) excavation. Scale in cm. (Photo C. Schrire)

(ii) Bases

There are 12 fragments of bases from seven bottles, including G 2, 3, 5. Colors range from dark to olive to light green, and diameters between 120 and 160 mm. They have high and low domed profiles and show signs of wear suggesting repeated use.

(iii) Necks

There are 17 fragments from 12 bottles. Colors range from olive to light green. Lengths, where measurable, range from 58 to 82 mm. Shapes include flared down forms (G 12), and lips are cracked off (G 31) or smooth. String rims include rounded trail (G 31), flattened trail (G 12, 32), and 'V'-tooled forms.

1.2 Bottles: Wine: Case

(i) Whole bottle

There are 54 fragments from a green case bottle found on the hill immediately behind the main site (G 83). It has a square base, 80 mm^2, and a low basal dome with a pontil scar. The neck is everted, the lip is smooth.

(ii) Base

There is one fragment (G 21), light green, measuring 100 mm^2, with a flat domed basal profile.

(iii) Necks

There are ten fragments from nine bottles. They are light and olive green in color. Lengths, where measurable, range from 12 to 27 mm. Necks are flared down and everted, and lips are smooth or flattened. Everted necks have no string rims (G 22, 24), though rounded trail string rims occur on flared necks (G 23).

1.3 Bottles: Wine: Cylindrical

(i) Base

G 30 is dark green full bottle, with a basal diameter of 83 mm, which is similar to examples found in the Moat. The basal profile is narrow domed with a pontil scar.

1.4 Bottles: Pharmaceutical

(i) Bases

There are five fragments ranging in color from dark and olive green to light green and aqua (G 56, 60). They vary in diameter from 45 to 66 mm but have no distinctive or dateable features (cf. Noël Hume 2001; 72-73).

(ii) Necks

There are three necks, ranging in color from dark to light green. Only one has a measurable length of 11 mm (G 61). It has a flared neck and a slightly everted lip.

1.5 Bottles: Distribution

Small fragments of glass were found scattered all over the site, but very few elements could be assigned definite MNV status. Those that could are shown by horizontal unit (Table 8.6) and vertical level (Table 8.7), but the numbers are too small to signify any definite patterning.

2. Tableware

2.1 Tableware: Goblets (Kelkglassen)

(i) Baluster and Balustroid stem

There are 12 fragments, each from a separate goblet (Barrington Haynes 1959:193-199). Three measurable balusters range in length from 30 to 35 mm, with central tears in two (G 48, 49), annular knops in some (G 45, 46, 50), and a conical foot in one (G 47). One particular example (G 44) has a molded, writhen stem, blown with ribbing, and an ovoid-conical bowl and a conical foot. Similar forms are dated to pre-1700 (Noël Hume 1968: 11 Fig. 3, 13 Fig. 4 no. 10) to the late 17th century (Hartshorne 1968: Pl. 37), and into the early 18th century (Henkes 1994: 216 no. 47.7) (Figure 8.18).

Table 8.6. Oudepost I (OPI); Bottle type distribution by Unit (MNV)

Unit	**Bottle Type (MNV)**				**Total**
	Onion/ Mallet	**Case**	**Cylindrical**	**Pharm.**	
Fort	3	2	-	2	7
Lodge	4	3	1	4	12
DP + NP	11	6	-	2	19
Total	18	11	1	8	38

Table 8.7. Oudepost I (OPI): Bottle type distribution by Level (MNV)

Level	**Bottle Type (MNV)**				**Total**
	Onion/ Mallet	**Case**	**Cylindrical**	**Pharm.**	
X	3	2	-	1	6
I	2	-	1	2	5
II	2	3	-	3	8
Total	7	5	1	6	19

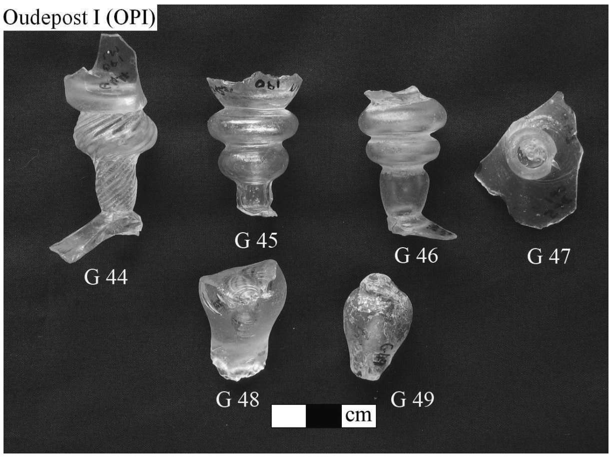

Figure 8.18. Baluster and balustroid goblets from the Oudepost I (OPI) excavation, (G 45-49), one with molded, writhen stem (G 44). Scale in cm. (Photo C. Schrire)

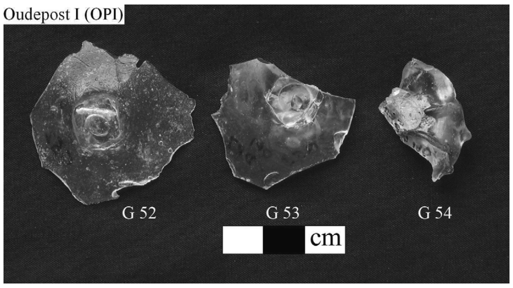

Figure 8.19. Pedestal 'Silesian' stemmed goblets from the Oudepost I (OPI) excavation with remains of quadrangular (G 52) and hexagonal (G 53, 54) sectioned stems. Scale in cm. (Photo C. Schrire)

(ii) Pedestal ('Silesian') stem

There are three small fragments from three vessels. One is quadrangular in section (G 52), with a central tear and a slightly conical foot. It resembles a stem from the Moat (A1-G 250). Two others are fragments of hexagonal stems. One (G 53) is a base with a conical foot, and the other (G 54) is a fragment of a shoulder with molded diamonds. Both are similar to A2-G 298 from the Moat. Dates follow the sequence described for the Moat stems described earlier in this chapter (Figure 8.19).

(iii) Molded, stemless

One fragment (G 81) is a domed goblet foot, with diagonal fluting along the rim. It is strikingly similar to the fragments C-G 484a, b from the Moat, and probably dates to pre-mid 18th century (Laan 2003: 74 no. 45) (see Figure 8.9).

(iv) *Roemers*

There are 42 fragments of *roemer*s, none of which retains measurable stem lengths.

2.2 Tableware: Beakers

(i) Plain

There is the base of one plain beaker or tumbler (G 43), whose mauve discoloration suggests exposure. It is not listed and is probably modern.

(ii) Wheel engraved

There are seven rim fragments from beakers with diameters between 70 and 80 mm. They have cut, stippled, and cross-hatched lines, but unlike the Moat collection, no intaglios appear here (G 38, 41, 41a). The Chinoiserie design engraved on G 37 (Figure 8.20)—a line with stippled leaves and two engraved and stippled pavilions or pagoda—is very similar to those found in the Moat (A2-G 285, 286; see Figure 8.11, 12). These designs date to the 18th century, possibly pre-1760 (for leaves see Bitter et al. 1997: 93 no. 278; for Chinoiserie see Henkes 1994: 248 no. 52.3; Henkes and Veeckman 1999: 31 Pl. 16 no. 50, Pl. 67 no. 50).

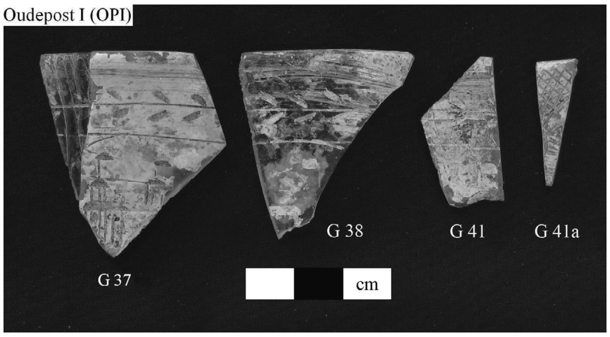

Figure 8.20. Wheel engraved beaker fragments from the Oudepost I excavation (G 38, 41, 41a) with Chinoiserie design of a pagoda (G 37). Scale in cm. (Photo C. Schrire)

(iii) Bossed/Meshworked

G 36 is a clear raspberry prunt with a bifurcated stem of trailed glass (Figure 8.21), whose trailing resembles a specimen found in the Moat (C-G 358; see Figure 8.14). The prunt is similar to that seen on 'unbreakable beakers' from the Rhineland and Antwerp, and is reminiscent of a *roemer* prunt of around 1685 (Crompton 1969: Pl. 34), and around 1675 (Barrington Haynes 1959: Pl. 56a).

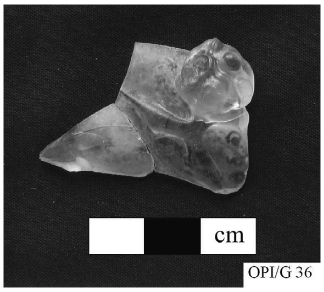

Figure 8.21. Clear raspberry prunt from the Oudepost I excavation (G 36). Scale in cm. (Photo C. Schrire)

2.3 Tableware: Distribution

All tableware fragments, including those itemized in the preceding sections, are listed in Tables 8.8 and 8.9. Although there are more fragments in the lodge, the fact that almost 40% of the listed fragments come from secondary (DP) and unprovenanced (NP) contexts renders further inferences uncertain.

Table 8.8. Oudepost I (OPI): Tableware type distribution by Unit (shards)

Unit	Tableware (nos.)			Total	
	Goblets	Beakers	Miscel.	Nos.	%
Fort	9	7	11	27	24.1
Lodge	28	1	13	42	37.5
DP	11	1	18	30	26.8
NP	10	-	3	13	11.6
Total	58	9	45	112	100.0

Table 8.9. Oudepost I (OPI): Tableware type distribution by Level (shards)

Level	Tableware (nos.)			Total	
	Goblets	Beakers	Miscel.	Nos.	%
X	1	5	2	8	11.6
I	17	3	16	36	52.2
II	19	-	6	25	26.2
Total	37	8	24	69	100.0

3. Miscellaneous

There are four pieces here. G 64, is a clear glass fragment, and part of a strap handle of blown glass that was pressed into shape (Figure 8.22). It was probably part of a tankard, jug, or beaker. Similar forms are dated between 1710 and1745 (Noël Hume 1976: 29 Fig. 17), as 17th-18th century (Henkes 1994: 248 no. 52.2, 250 nos. 52.9, 52.10), and as 18th century (Hartshorne 1968: 334, Fig. 340).

There is a fragile glass disc (G 35) with a diameter of 35 mm. There is also a thin-walled glass cylinder with a broken base (G 42) that may be part of a lamp. Finally, there is a rim fragment (G 63) of clear glass, with cobalt blue within the fold of the rim, that might be the footring of a wine glass (Bly Straube 2004, pers. comm.).

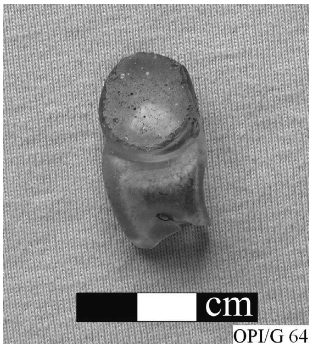

Figure 8.22. Clear fragment from the Oudepost I excavation, probably part of a strap handle from a tankard or jug (G 64). Scale in cm. (Photo C. Schrire)

Discussion

All glass in the VOC Cape sites was imported from Europe, and findings may therefore be integrated into the wider sphere of glass production during the 17th-18th centuries that reflects a link between the Netherlands and its European neighbors.

1. Bottles

The dating and evolution of bottles in European and colonial American sites is based on forms, contexts, and, where possible, seals. The earliest forms are case bottles, which were blown into a square mold and which have square sides, short necks, and everted lips that were sometimes sealed with a threaded pewter collar and cap (Noël Hume 2001: 62). They date back to the late 16th century as a common utility bottle, and evolved a century later into a more tapered form to carry the gin whose name they bear. They continued in production well into the 18th century (Van den Bossche 2001: 131). Turning to globular dark green bottles, Noël Hume's sequence for the evolution of English forms, is based mainly on dateable seals, and starts around 1650 with bulbous shaft and globe bottles. These are followed around 1688 by shorter necked, bulbous onion bottles, with wider bases, deeper kicks, and string rims. These give way around 1720 to straight -sided mallet bottles, and finally to cylindrical forms around 1770 (Banks 1997; Noël Hume 2001: 60-68). These forms spread to the Netherlands and beyond at different rates in different places (Henkes 1994: 245-246). Onion bottles were used for beer, wine, oil, and vinegar, and gained their 'Dutch' appellation from trade in the colonies, including Suriname and Guyana (Van den Bossche 2001: 119). About 70% were produced in Belgium where a patent was held, and almost a half a million were exported between 1745 and 1750 to the Netherlands for the VOC trade (ibid.: 121).

Archaeologically dated collections from shipwrecks, pits, and garbage (e.g., Gawronski 1992; Noël Hume 1968; 1976; Bitter et al. 1997; Clevis and Smit 1990) and a particularly rich collection from a cesspool of a Dutch tavern (Laan 2003) provide good chronological markers for our VOC collections at the Cape. Nevertheless it is difficult to precisely source and date bottles that circulated in the ambit of the great trading companies like the VOC for a number of reasons. First, although the Netherlands imported bottles from numerous European sources and re-used them repeatedly till they broke, even well-provenanced bottles recovered from wrecks like the *Hollandia* (1740-1750) may not have been made in the Dutch Republic at all (Dumbrell 1992: 128-137; Gawronski 1992: 394-399). Second, a sequence of onion to mallet bottles may be misleading in that onion bottles continued to be made and used well into the 18th century, long after mallets first appeared (Dumbrell 1992: 128; Noël Hume 2001: 70). This overlap extended into the wider European market, where onion bottles from Belgium, Germany, and England continued to circulate together with English mallet bottles (Van der Bossche 2001: 119-125).

The only published study of wine bottles at the VOC Cape comes from the collection excavated on the Grand Parade (Abrahams 1987). The Parade stands a few hundred meters west of the Castle, on the site of the first Dutch Fort de Goede Hoop, 1652-74 (Abrahams 1985: 59-61, Abrahams 1987). Abrahams analyzed 166 specimens (1987: 1), including English and Continental shaft and globe bottles, as well as definite onion, mallet, cylindrical, and case bottles (ibid.: 13-15). She defined four periods of deposition, the earliest dated from 1670 to 1700, with shaft and globe, onion, and case bottles followed by onion bottles from 1690 to 1720, onion/mallets and Constantia forms from 1720 to 1760, and finally, cylindrical bottles from 1760 to1790 (Abrahams 1987: 34). Unfortunately her sequence cannot entirely be trusted, partly because the deposits from which they came were a series of secondary fills that accumulated over a long time and partly because her sequence is sometimes at odds with her key referent (Noël Hume 2001: 62-68).

Turning to our collections, the largest comes from the Castle Moat (M90), with a small collection from the Old Granary (F2) and an apparently depleted one from Oudepost I. Wine bottles include onion/mallet, case, cylindrical, and beer types. Onion/mallet bottles are present at all three sites. The largest series from the Moat includes dark and bulbous bottles with smooth flattened lips and rounded, flattened and 'V'-tooled string lips, such as were made for the Dutch market in the 17th-18th century (Van den Bossche 2001: 119-24). Their domed bases are consistent with forms dated to 1714 (Noël Hume 2001: 64), and their broad domed profiles date between 1730 and 1740 (Dumbrell 1992: 30-31; Noël Hume 2001: 65). Necks vary in length. Short ones look like those found on Dutch onion bottles dated between 1693 and 1699 (Dumbrell 1992: 61), as well as examples from Antwerp, Netherlands, and Germany (Henkes 1994: 287 nos. 59.10, 59.11). The short neck is also present in late 17th century forms (Henkes 1994: 130 g, h) and in the wreck of the *Hollandia* (1743) (Gawronski 1992: 399). Similar English forms were made between 1688 and 1708 (Noël Hume 2001: 63 Fig. 8), between 1713 and 1717 (Banks 1997: 28), and in the Netherlands between 1692 and 1725 (Van den Bossche 2001: Pls. 73, 75). Longer necks appear in early 18th century Kampen (Clevis et al. 1990: 223,207) and on wrecks of the *Hollandia* (1743) (Gawronski 1992; 395-398) and the *Amsterdam* (1747) (Dumbrell 1992: 128a, b), as well as on English mallet bottles of 1706-24 (Banks 1997: 28). Finally, although Dumbrell thinks all Dutch bottles have flat string rims (1992: 39), many 'V'-tooled rims appear in the Moat collection, consistent with their reported abundance on 18th century onion bottles (Van den Bossche 2001: 123 nos. 1, 124) as well as on an English mallet made in 1728 for the Dutch market (ibid.:125 Pl. 77).

The Moat case bottles comprise a large collection and have square bases that measure around 99-100 mm in length. They have shallow kicks, pontil scars, and flattish, domed basal profiles. Lips are straight or everted, and string rims are mainly rounded. They are mostly too broken to judge whether their sides were straight or tapered, but in general they resemble Dutch, Belgian, and/or German bottles (Van den Bossche 2001: 131-3). The only recognizably straight one is consistent with an early 18th century date for the collection (cf. Van den Bossche 2001: 131), and the string rimmed ones date from 1720-70 (ibid.: 131 Pl. 83 no. 3, 132 Pl. 84 no. 2). Cylindrical bottles come in full and half sizes and appear late in the archaeological sequence the Moat, confirming their association with the fledgling wine industry that developed in the 18th century at the Cape.

The scored, abraded bases of both onion/mallet and case bottles show repeated use. Their original contents might have been liquor, but like stoneware flasks, they were probably also used for water, vinegar, and oil (see Chapter 6). These commodities appear in documents relating to provisioning at the settlement from its earliest inception in 1652 (Thom 1952: 37) and, more directly, in supply lists of commodities sent to Oudepost I (VOC 4004). As Jordan noted in her analysis of stonewares (Chapter 6), the VOC allowed the opening of *tapjens*, or inns, at the Cape from 1656 on, and these public houses distributed alcohol purchased from the Company at fixed prices, collecting it from the Company's warehouses (Groenewald 2004: 4-5; Groenewald 2007). Bottles appear together with listings of glasses, tankards, gaming and darts boards, long tables, and benches in probates of licensed and illegal inns (Malan 2007: 28). Importation of beer and distilled brandy might have been done in wooden casks, but the distribution process probably also involved bottles and Rhenish jugs (Mentzel 1925: 38). In this regard we should note the carboys from the Moat and Phase 7 in the Old Granary. These large globular demijohns were usually kept in a wooden frame and used to store wine and other liquids. They appear in the Cape inventories after 1700 for use in taverns (Woodward 1982: 224, cited in Abrahams 1987: 36). Their absence at Oudepost is hardly surprising, given that it was an outpost not a tavern, yet storage jars do occur there in the form of Asian stoneware martevans that probably came off by passing ships (Schrire *et al.* 1993).

Pharmaceutical bottles are found in the Moat and Oudepost I. Some are blown and others may have been molded. They range in size, and in color from clear to green and blue. All are typical of 17th-18th century medicine holders (Noël Hume 2001: 72). Exactly what they contained is not known, but it was common for companies to provision their men with potions to address, if not cure, a wide variety of ills such as are listed in the daily records of colonial life.

2. Tableware

The tableware from all three Cape sites is limited, in part due to the removal of glass by collectors at Oudepost I. The largest collection comes from the Van der Stel Moat. All three sites have far more goblets than beakers.

Goblets include a variety of molded and blown forms, with and without stems, including heavy drawn stems, baluster and balustroid (including a molded writhen) stems, molded pedestal ('Silesian') stems, and *roemer*s. They are dated from the late 17th to the early 18th century, and possibly, in one instance, even later, in 19th century times. Drawn stemmed glasses were made for tavern and household use in Europe, where they were popular from the late 17th to the 18th century. *Roemer*s, with their diagnostic, hardy prunts, appear in all three sites as well as in VOC probate records. They were made in Germany and the Netherlands, in places like Groningen. Similar vessels called *Berkemeiers* were discontinued around 1650, and *roemers* grew more common, continuing well into the 18th century (Laan 2003: 67). Numerous authors such as Bitter and Roedema (1995: 61) offer evolutionary sequences, some of which are based on depictions of *roemers* in genre paintings (Brongers and Wijnman 1968: 19), as well as others based on the presence of increasingly small bowls and feet over time (Henkes 1994: 256-57 nos. 54.1, 54.3, 54.4, 54.5). If stem length is a guide to the date (ibid.: 256-257), the Moat material would fit in around the late 17th century, and if the number of rows of decorative prunts is any guide, it would date between about 1625 and 1675 (Bitter et al. 1995: 170 no. 185) or between 1625 and 1700 (Clevis et al. 1990: 233 no. 238). This, in turn, might denote export of outmoded wares to a VOC outpost.

Turning to beakers, the collections include plain, molded, wheel engraved, screwtop and bossed forms. Wheel engraved fragments provide direct links between all three sites. Ours all come from clear glass beakers, though engraving was also common on goblets in 17th and 18th century Europe (Hartshorne 1968; Laan 2003). They are distributed throughout the Moat below the surface level, as well as in F2 and Oudepost, suggesting that they were common at the VOC. A wide variety of wheel cut, intaglio, and stippled decorations occurs, including Chinoiserie style depictions of pavilions or pagodas and possibly a boat, as well as lines, leaves, ovals, sprays, plumes, circles, scrolls, and flowers. In keeping with experts who allege that most, if not all, glass with a VOC logo may have been engraved long after VOC times, it is worth noting that no VOC marks appear in these archaeological collections (Heller 1956; Saitowitz et al. 1988).

Bossed/meshworked beaker fragments appear in all three sites, and include decorated trails and bosses, and in one instance a fragment of aqua-swirled *facon de Venise* (F2/Ph 7-G 17). Some of them are attributed to the late 16th-17th century, and some might argue that their relatively high incidence in F2 is an indication of relative antiquity here. Unfortunately they are few in number and fail to cluster very strongly in the lower, older levels of either the Moat or F2. As with the *roemers*, this might suggest export of outmoded wares, or simply that such wares continued in production and use for a long time (Laan 2003).

Conclusion

The analysis of glass from three VOC sites at the Cape reveals the practices of the VOC settlement in the late 17th-early 18th century regarding trade, liquor consumption, and drinking behavior. All the glass was imported from Europe. The wine bottles, carboys, and pharmaceutical bottles carried liquor, and possibly water, as well as wine, brandy, beer, arrack and gin, and medicine, and were used and re-used for a variety of purposes before they finally broke. They denote the presence of both individual and mass consumption. The tableware includes a variety of drinking glasses including goblets and beakers. The Moat component might derive from private possessions, from local taverns, or from the wares supplied by the VOC for use by the governor and his officials. The glasses at Oudepost I probably came from passing ships.

"Our nation must drink or die," said Jan Pieterszoon Coen, founder of VOC Batavia a good 30 years before the Cape was settled, and "…he was not referring to water," adds Charles Boxer (1977: 208). The analysis of glass has long focused on the aesthetics of a blown bottle, the curve of a goblet, and the number of prunts per *roemer*, but the overarching message of the glass collection is provisioning and consumption. The shards of glass are but a pale reflection of the legendary drinking men and women of the Dutch East India Company's Cape settlement. The Cape did not earn its sobriquet 'Tavern of the Seas,' nor the more accurate 'Tavern of Two Seas,' for nothing. Boxer speaks of a "colossal consumption of wine, brandy, arrack and gin" throughout the Dutch seaborne empire and speculates that most of those who died in the tropics, died of drink (Boxer 1977: 208). Tavern keeping was the first choice of most free burghers (ibid.: 219), and closer to home, in Batavia in 1674, fully one sixth of the free burghers were employed as vintners and tavern keepers (ibid.:208). At the Cape, taverns or *taphuisen* abounded (Worden et al. 1998: 58), and liquor was part of the official daily rations that the VOC handed out to their soldiers. "Drinking," says Wayne Dooling, "appeared to be the most dominant form of recreation of the Castle's inhabitants" (1994: 17), and VOC court cases abound with tales of the alcoholism that fueled fighting, theft, adultery, sodomy, homicide, and murder. Clearly the Company was willing to pay the price, dependency and control being the rewards of enforced alcoholism.

A final word on the analysis of the glass: Whether pictured in their full shiny and iridescent glory or cataloged in careful detail, most of these residues signal dependence on and control by the VOC, not only of their own men, but also of the indigenous Khoekhoen whose dispossession came down so hard on the heels of a bottle of brandy.

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CHAPTER 9

Objects of Personal Adornment from VOC Sites at the Cape

Carolyn L. White

Introduction

This chapter provides an analysis of objects of personal adornment found in two Dutch East India Company, or VOC, sites at the Cape. The first is the Van der Stel Moat at the Castle of Good Hope (M90), and the second is Oudepost I (OPI), an outpost of the main settlement lying about 120 km north on the shores of Saldanha Bay (see Chapter 2). Together they provide insight into the gender, rank, and physical appearance of residents living under VOC rule in the late 17th and early 18th century Cape.

Artifacts may be divided into four categories: clothing fasteners, jewelry, hair accessories, and miscellaneous personal accessories (White 2005: 10). The Moat (M90) assemblage consists solely of buttons; the Oudepost assemblage comprises buckles, buttons, finger rings, and a segment of chain, likely from a watch chain or waist-hung appendage. The clothing fasteners—buttons and buckles—can be categorized by size, material, and decoration, and may be used to identify the sorts of clothing worn by the site inhabitants. Buckles may be linked to particular articles of clothing (shoes, breeches, straps/swords), and buttons reflect the level of elaboration of the clothing as well as its overall diversity. In both cases, material and level of decoration also allude to rank and status differences among the wearers.

The documentary record is largely unaccommodating in its recording of the clothing and accessories worn by the people who lived at Oudepost I and at the Castle. The uniforms of the military are carefully described in Mentzel (1925 [1725]) and the supply lists record a wide variety of clothing materials shipped to the Cape, consisting mainly of textiles, but these describe only a few types of buttons and a few accessories (Leibbrandt 1902; Thom 1952). On the other hand, the archaeological record provides material remains that reify the clothing and garb of the Cape inhabitants. The only comparable work to date is that of Elizabeth Jordan (2006). Her study of late 18th-19th century washerwomen postdates the collections studied here, but incorporates a thorough examination of many artifacts of personal adornment, particularly buttons (ibid.: 2006). Her analysis draws on (and critiques) work on contemporaneous collections in North America (e.g., Edwards-Ingram 1999; Galle 2004; Heath 1999; Mullins 1999; Wilkie 2003).

Analysis

On the whole, the personal adornment assemblage, like much of the material culture of the VOC, was imported from Europe. There might have been limited local production of bone buttons, since supply lists do not mention these being imported, but there is an absence of button making waste recovered at the sites. The presence of a button mold (discussed later in this chapter) suggests that there were some early attempts to supplement the European metal imports. The following analysis categorizes personal adornments according to the divisions laid out in *American Artifacts of Personal Adornment* (White 2005) and draws on resources contained in that volume for identification. Given the very restricted information that is available for personal adornment for this period, each individual artifact type is described. The artifacts are grouped by clothing type and discussed as sub-assemblages. Appendix F contains a list of the personal adornment artifacts and the associated catalog numbers used in the text. Catalogs and color images of some figures appear in the enclosed CD.

Carolyn L. White, "Objects of Personal Adornment from VOC Sites at the Cape" in *Historical Archaeology in South Africa: Material Culture of the Dutch East India Company at the Cape,* pp. 205–212. © 2014 Left Coast Press, Inc. All rights reserved.

Clothing fasteners

The clothing fasteners are broken into the following categories: aglets, buckles, and buttons (the last of which includes a single button mold as well).

Aglets

Buckles

The buckles are divided into the following categories:

- Shoe buckles
  - Whole buckles
  - Frames
    - Whole
    - Fragments
  - Chapes
- Knee buckles
  - Whole
- Strap buckles
  - Whole

The buckles are analyzed using standard descriptions established in White 2005. Although the personal adornment artifacts from the Cape are Dutch in origin, they parallel styles and fashions seen in England and throughout Europe from the period (e.g., Abbitt 1973; Egan and Pritchard 1991; Mould 1979; Swann 1981). Certainly, they exhibit stylistic individuality.

Buttons

As in the case of the buckles, the buttons are analyzed using standard descriptions developed by White (2005). The buttons are divided into the following categories:

- Sleeve
- Waistcoat buttons
  - Metal
  - Bone
    - Shanked
    - Sew-through
- Coat buttons
  - Metal
  - Bone
    - Shanked
    - Sew-through
- Unidentified function
- Button mold

Within each major category, buttons are divided according to diameter, and then further separated into decorated and undecorated examples.

Jewelry

Jewelry is represented at the Cape sites in a very small quantity.

Sites

Castle: Van der Stel Moat (M90)

The personal adornment collection from the Moat is restricted to buttons. It is possible that a more varied component was excavated and that it has been misplaced, in which case we look forward to its re-appearance at some future date (Carmel Schrire 2009, pers. comm.). The distribution of the buttons in the excavation shows that most are found in the richest level of the site, A2, but this distribution does not permit generalizations about Cape dress or status (Table 9.1).

Table 9.1. Van der Stel Moat (M90): Distribution of buttons by Level

Level	Nos.	%
A	5	5.2
A1	11	11.3
A2	70	72.2
B	5	5.2
NP	6	6.1
Total	97	100.0

The waistcoat buttons from the Castle Moat are made exclusively of bone. Most of the buttons are undecorated, with drilled shanks. Those that are decorated are simply elaborated with incised rims and range in size from 13 to 17 mm. The coat buttons are mostly bone, with the exception of two metal ones (BT 8, 9). BT 9 (Figure 9.1) is a very large copper alloy button (28 mm in diameter). It is the largest button recovered on the sites and suggests a high level of elaboration for the garment on which it was worn.

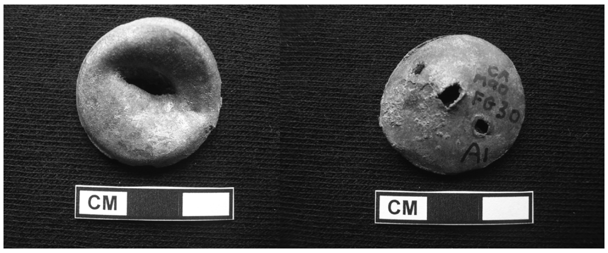

Figure 9.1. Large coat button (BT 9) from the Castle Moat (M90) excavation, made of copper alloy. Scale in cm. (Photo C. White)

The bone buttons range in size from 19 mm to 25 mm, with most falling in the range of 14 to 16 mm. Many are decorated with incised rims, but this is the extent of the elaboration of these buttons. A single button is green, perhaps tinted by a copper or fabric cover. Most of the buttons fall into the category of 'unidentified function' and cannot be slotted into the categories in the previous section with certainty.

Within this category are several buttons that are notable. There are several very small bone buttons (BT 27-34) that range from 7 to 9 mm (Figure 9.2). They may be shirt or sleeve buttons. Five of these are small, undecorated buttons of the same size (9 mm) that may have belonged to the same garment. A single sew-through button (BT 96) was identified. It is a button core that was likely covered with textile when worn.

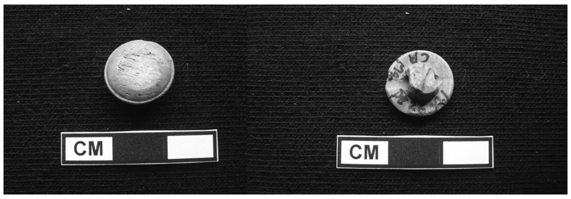

Figure 9.2. Small bone button (BT 28) from the Castle Moat (M90) excavation. Scale in cm. (Photo C. White)

The remaining unclassified buttons are mostly undecorated bone buttons with drilled shanks. These are convex buttons that vary in size from 12 to 20 mm. The buttons are very similar in that they are undecorated. Variation in the form of the drilled shanks suggests the individual hand of the maker.

There is therefore tremendous uniformity in these fasteners in the convex shape and lack of elaboration on the buttons. Even the decorated buttons have restrained elaboration. Most of the decorated buttons are incised on the rim, but this decoration is far from sophisticated and reinforces the vision of the site inhabitants as rather simply clothed. There are several buttons that are somewhat more elaborate; for example, BT 58, a possible waistcoat button, has a turned design. The controlled designs attest to the overall conservative nature of dress at this site. This lack of elaboration may be expected at a far-flung VOC settlement where the bulk of the clothing materials were imported as provisions for the garrison (Mentzel 1925 [1725]: 59-61). However, the simplicity of the buttons also suggests uniformity in physical appearance in terms of dress across the population.

Oudepost I (OPI)

Unlike the Castle collection, the personal adornment from Oudepost I exhibits far more variation than the button collection from the Castle Moat. We are unable to assume, however, that buckles and jewelry were never present in the Castle Moat because some small components of the collections are currently missing.

The Oudepost I clothing fasteners comprise aglets, buckles, buttons, and a button mold. Two aglets were identified. They are made of sheet copper, curled into a tube with a straight seam along the edge in the fashion used since the medieval period (White 2005: 31). They have rounded tips, formed by rotating the end against a flat surface. The base of the aglet is pinched, to hold the lace in place.

The Oudepost I subassemblage includes complete buckles as well as frames and chapes. Most of these are shoe buckles, as indicated by the size and form of the frame (White 2005). The buckles are similar in form to those identified in more well-documented British excavations (Egan and Pritchard 1991), but also possess characteristics that suggest an origin other than England.

The complete shoe buckles are small and adhere to fashions of the late 16th and early 17th centuries (White 2005: 40). Though the two buckles offer contrasting styles, they are consistent with the scalloping and knops and serrated decorations favoured in the period of 1680 to 1720 (White 2005: 40). These buckles also possess stud chapes, which were common in the period up to 1720 (White 2005: 40, 41) (Figures 9.3, 9.4).

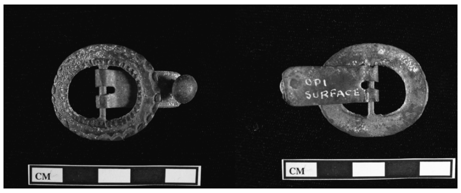

Figure 9.3. Complete shoe buckle (BK 1) from the Oudepost I excavation. Scale in cm. (Photo C. White)

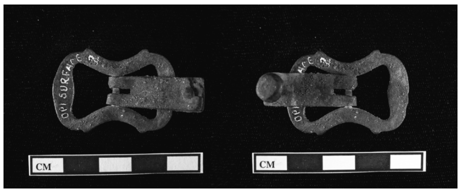

Figure 9.4. Complete shoe buckle (BK 2) from the Oudepost I excavation. Scale in cm. (Photo C. White)

The rest of the shoe buckles are fragmentary buckle elements: frames and chapes. The decorative motifs on the frames range from simple bevelling to knops and scalloping. Three of the frame fragments (BK 9, 10, 11) are elaborate openwork frames with ribbon and bows design (Figure 9.5). These buckle fragments suggest the presence of a pair of shoes and the high level of decoration associated with this particular element of attire. The shoe buckle chapes are cooking pot shaped with a single tongue. This form was utilized beginning around 1720 in order to secure larger buckles to the shoes (White 2005: 42).

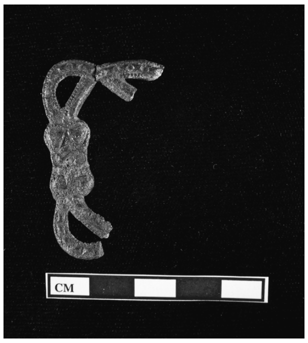

Figure 9.5. Partial shoe buckle frame with ribbon and bow design (BK10) from the Oudepost I excavation. Scale in cm. (Photo C. White)

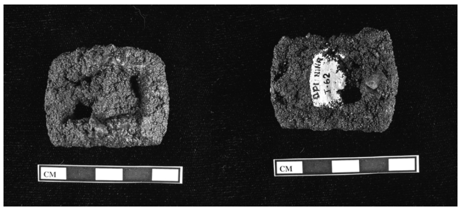

Figure 9.6. Iron knee buckle (BK 21) from the Oudepost I excavation. Scale in cm. (Photo C. White)

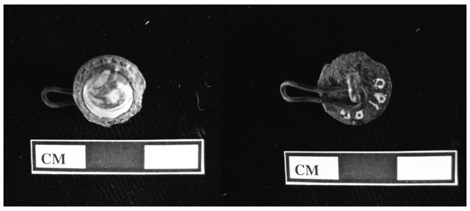

Figure 9.7. Sleeve button (BT 2) set with stone, from the Oudepost I excavation. Scale in cm. (Photo C. White)

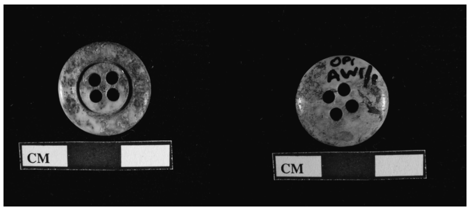

Figure 9.8. Four-holed bone button (BT 33) with incised border from the Oudepost I excavation. Scale in cm. (Photo C. White)

There are two remaining buckles aside from shoe buckles. The first (BK 21) is a knee buckle made of iron (Figure 9.6). It is identifiable as such due to the form of the chape, which is anchor shaped. The small size of the buckle suggests that it was used to fasten breeches at the knee. This likely dates from the later portion of the occupation of the site, as knee buckles became popular in the 1730s (White 2005: 43). The second buckle (BK 22) is a sword or baldric buckle.

Turning to buttons, they comprise the bulk of the Oudepost assemblage, and include sleeve, waistcoat, and coat buttons as well as a number that are not readily identifiable by garment. The Oudepost I buttons are made of metal (primarily copper alloy), bone, and shell.

Eight metal sleeve buttons were identified in the Oudepost I excavations. Two sets are fragmentary and two are complete. The fragments are identifiable as sleeve buttons based on the flattened U-shaped shanks and the small size of the buttons (White 2005: 61; Noël Hume 1961: 383). One of these (BT 1) is undecorated, and the other (BT 2) is set with a white stone and has a beaded border (Figure 9.7). A connecting wire loop remains attached to the shank. The first intact set is decorated with tiny dots on the border; they remain attached with a wire loop. A second intact set is large in size, with a chained decorative border and a central floral design; the large size is unusual.

The waistcoat buttons are made of metal and bone and exhibit variation in the decoration as well as in the form. The metal buttons have two primary forms: hollow cast two-piece buttons that are brazed together with pin shanks and solid cast buttons with cast or brazed shanks. All of the metal waistcoat buttons are undecorated, with convex or flat shiny surfaces.

The bone waistcoat buttons are both decorated and undecorated. The undecorated buttons, like the metal ones, possess smooth convex or flat surfaces. The decorated buttons are either incised on the rims or possess a border and nippled decoration in the center.

Most of the bone waistcoat buttons are shanked, save four sew-through buttons. Two of these are cores with a domed shape, while one is flat. These buttons would have been covered with textile when worn, which would have served to attach the button to the garment. A single four-holed sew-through button with an incised border (BT 33) was also recovered (Figure 9.8). This button is likely a waistcoat button, but may have been a breeches button.

The coat buttons in the Oudepost I assemblage are made of bone and metal and are made in a manner similar to the waistcoat buttons in terms of production and decoration. They measure between 14 and 32 mm.

The metal coat buttons exhibit a range of decoration. Two buttons (BT 34, 40) possess an octagonal shape as well as a nipple decoration (Figure 9.9). Another (BT 35) has a domed surface with crossed lines and a central nipple. Central nipple motifs are found on additional coat buttons. Organic designs are found on other buttons. One (BT 38) is a stamped copper alloy button cover with a stamped oval design with sunburst (Figure 9.10), and another (BT 36) has an engraved floral design on the surface (Figure 9.11).

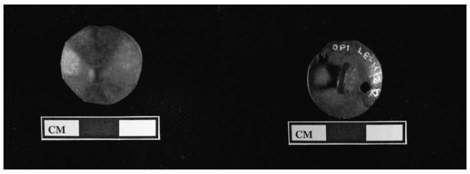

Figure 9.9. Octagonal metal button (BT 40) with nipple decoration from the Oudepost I excavation. Scale in cm. (Photo C. White)

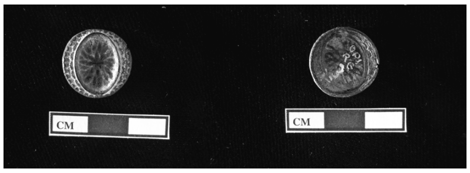

Figure 9.10. Copper alloy button cover (BT 38) with sunburst from the Oudepost I excavation. Scale in cm. (Photo C. White)

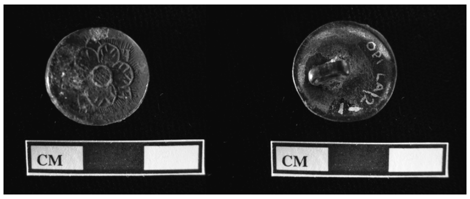

Figure 9.11. Copper alloy button cover (BT 36) with floral design from the Oudepost I excavation. Scale in cm. (Photo C. White)

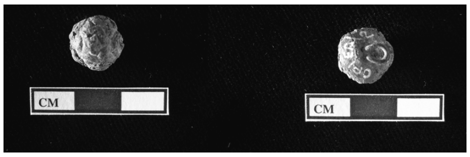

Figure 9.12. Probable doublet button (BT 70) cast, with rosette design from the Oudepost I excavation. Scale in cm. (Photo C. White)

The bone buttons are almost exclusively undecorated and all but two are shanked. The coat buttons are identified by size, and these large buttons mirror the form and decoration found in the waistcoat bone button sub assemblage. Two large sew-through buttons are also present in this sub assemblage.

Many of the Oudepost buttons are not readily classified within the categories described earlier in this chapter and fall into 'Unidentified function.' The metal buttons can be roughly divided into several groups according to diameter. Buttons that range from 9 to 12 mm may be sleeve buttons or shirt buttons. There are several (BT 69, 70) that are small cast buttons with a rosette design (Figure 9.12), and these are likely doublet buttons.

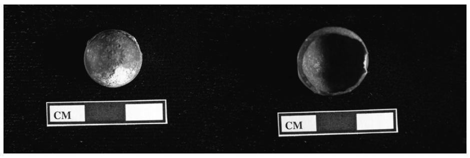

Figure 9.13. Metal button (BT 92) with sunburst design from the Oudepost I excavation. Scale in cm. (Photo C. White)

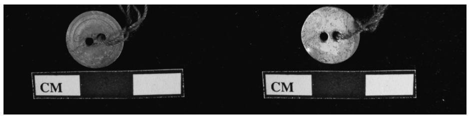

Figure 9.14. Small shell button (BT 102), probably expensive, from the Oudepost I excavation. Scale in cm. (Photo C. White)

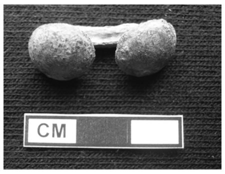

Figure 9.15. Intact frog (BT 104) from the Oudepost I excavation. Scale in cm. (Photo C. White)

The second major group of unidentified metal buttons range in size from 13 to 18 mm. Most of these are undecorated and may be waistcoat, doublet, or breeches buttons. These buttons are both cast buttons with drilled and brazed eyes and two-piece hollow cast brazed buttons. Most possess flat or convex, smooth surfaces. A sunburst design and octagonal shape (BT 92, 93) are shown on two of these buttons (Figure 9.13).

The bone buttons that are unidentified in function are small and undecorated (B 97-99). These may be breeches buttons. A single bone core also may be a breeches button. These were likely plain and otherwise unremarkable elements of simple garments.

Two small shell buttons (B 101, 102) were recovered at Oudepost (Figure 9.14). Measuring 10 and 11 mm respectively, these would have been among the most expensive buttons worn at Oudepost, as the shell would have been imported from the East (White 2005: 71).

Several additional fasteners stand apart from the rest of the button sub assemblage. A small metal stud (BT 103), an intact frog (BT 104; Figure 9.15), and a frog fragment (BT 105) make up this group. The function of the stud is not known; the frog and frog fragment may have been used to attach a weapon to the body or to hold edges of a garment together.

A button mold was also identified at Oudepost (Figure 9.16). This is a portion of a three-piece button mold used to make frog-style button fasteners. The mold has tenon holes present on two sides and a groove is present to receive the molten metal. This mold is clear evidence of button manufacture occurring at Oudepost (Ivor Noël Hume 1988, pers comm.).

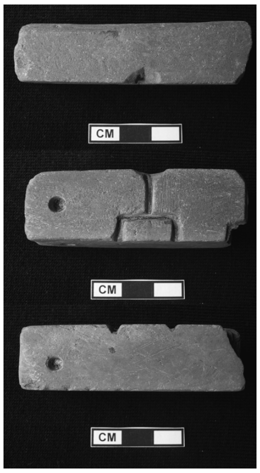

Figure 9.16. Stone button mold from the Oudepost I excavation. Scale in cm. (Photo C. White)

The jewelry in the Oudepost collection includes two finger rings. The first (R 1) is a copper alloy ring with a stone set in a cabochon setting (Figure 9.17). It may have been a signet ring, but the condition of the stone is poor and the surface has deteriorated. The second (R 2) is a copper alloy band decorated with etched patterns (Figure 9.18). Though this ring resembles a modern wedding band, it could have served a variety of symbolic functions in the 17th and early 18th century (White 2005: 94-96). It may have been a symbol of wealth, a mourning ring, a wedding ring, or a betrothal ring. In addition, although there is no hint of Indian or Asian beadmaking, two broken agate rings of South Indian manufacture are noted (Karklins and Schrire 1991: 67).

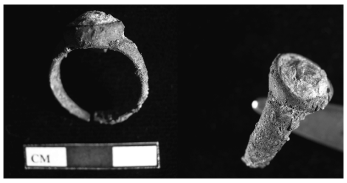

Figure 9.17. Copper alloy ring (R1) from the Oudepost I excavation. Scale in cm. (Photo C. White)

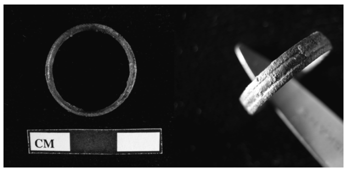

Figure 9.18. Copper alloy band (R2) from the Oudepost I excavation. Scale in cm. (Photo C. White)

Finally, three links of chain (C 1) were also identified at Oudepost. These links are made of round wire. Chains were expensive items, as they were handmade and very labor intensive. It is difficult to ascribe a particular function to a small piece of chain, but the size of the links suggests its use as a watch chain or waist-hung appendage.

The location of materials from Oudepost I shows that they are distributed all over the site, but that most come from the fort area in Level I (Table 9.2). This is similar to the distribution of gunflints but differs from the distribution of other artifacts, such as food remains and coarse earthenwares that concentrate in the Lodge. Since the buckles and buttons were dislodged from clothing, it may be that their distribution in the fort reflects the fact that more stress and activity took place here than in the Lodge.

Table 9.2. Oudepost I (OPI): Distribution of personal adornments by Unit and Level

Object	Unit			Level			Total	
	Fort	Lodge	NP	X	I	II	Nos.	%
Aglets	2				1	1	2	1.5
Buckles	9	11	3	2	8	10	23	17.2
Buttons	57	39	7	14	53	29	103	76.7
Button set	2				2		2	1.5
Chain	1				1		1	0.8
Mold	1			1			1	0.8
Rings			2				2	1.5
Total	72	50	12	17	64	39	134	100.0

Summary and Conclusions

The assemblages from the Castle Moat and from Oudepost I exhibit general similarity in form and appearance. The Castle Moat assemblage possesses a more limited range of materials than the Oudepost assemblage, but as in the case of other personal adornment assemblages (see White 2008, 2004) these differences may be a product of preservation and excavation strategies more than anything else.

Mentzel's description of the Cape's inhabitants provides great detail for the military uniforms worn by the men (1925 [1785]: 59-61). They were worn only on special occasions, however, and the artifactual record contains little or no evidence of the expensive items associated with the officers, adjutants, sergeants, and others with distinctive uniforms.

The personal adornments from the two VOC sites are dominated by clothing fasteners. Overall they reflect the appearance of the majority of the presumably European inhabitants of the site, who were males, both men and boys. The archaeological evidence suggests a relative lack of diversity in the clothing worn at these sites. Most of the buttons, and buttons comprise the bulk of the personal adornment, are very simple forms with smooth surfaces, suggesting that most of the VOC men were adorned in similar garb or in uniform.

At the same time, within the assemblages is a smaller number of clothing fasteners and jewelry that suggest variation in garb across the population, likely across associated military ranks. Some buttons and buckles are decorated with rosettes, floral patterns, nippled decorations, and geometric designs, which would have set the wearers apart from the bulk of the group. The very small number of additional artifacts of personal adornment, finger rings and a watch chain, further underscores the presence of physical differentiation among members of the group.

Mentzel's description of the uniforms also emphasizes the associated class differentiation. The dominance in each assemblage of simple undecorated buttons likely correlates with the dominance of low ranking soldiers at the sites. As described elsewhere, the communities were largely divided into two classes (Jordan and Schrire 2002: 255), and the plain clothing that was associated with the simple buttons would have underscored that rank difference.

Supply lists from the 17th century itemize a wide range of textiles and other clothing articles that were imported to the Cape. While the archaeological evidence does not preserve any of the textiles to compare with these lists, there are records of silvered and copper gilt buttons imported August 18, 1676 (Leibbrandt 1902: 277) and "hair buttons for coats" imported December 7, 1699 (ibid.: 236). The hair buttons likely degraded in the soil, but there is ample evidence of the metal buttons recovered on these sites.

The personal adornment assemblages provide an image of the individual appearance of many of the elite inhabitants of the VOC sites. While the plain undecorated buttons suggest that many of the inhabitants dressed in ways that associated them with portions of the larger 'unqualified' class, the fancy shoe buckles, small buttons with cast rosette designs, and unusual articles of clothing associated with some of the artifacts found in small numbers, reinforces the rank of those people in the 'qualified' class. There is a marked variation across the decorated items, and while there are some unifying themes in decoration that have to do with popular styles of the period, there is also a notable amount of differentiation within the decorated artifacts. The men of higher rank would have also differentiated themselves from one another through the dress they wore.

There has been very little written about South African (or Dutch for that matter) clothing in the 17th and early 18th century. In this chapter I have focused on describing and illustrating in detail the kind of clothing worn on the VOC sites, rather than using the personal adornment to further understand the sequencing of the site (see Chapter 2 for detailed stratigraphic sequences). As more of this material is uncovered and published, further refined sequences and illustrations of the variability and continuity of personal appearance through clothing and adornment might be possible.

Acknowledgments

Many thanks to Carmel Schrire for inviting me to study the personal adornment of the VOC.

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CHAPTER 10

Metals and Associated Artifacts from Oudepost I, Cape

Carmel Schrire

Introduction

Metal finds from Oudepost I include iron, copper, brass, bronze, pewter, and lead. Catalogs and color images of some figures appear in the enclosed CD. This chapter does not deal with the large iron collection, which has yet to be analyzed and conserved. The metal artifacts used for personal adornment are discussed in Chapter 9. For ease of analysis I have separated the copper, brass, bronze, tin, and pewter from the lead, which is described later in the chapter, together with the molds that were mainly used to produce lead shot.

Copper, Brass, Bronze, Tin, and Pewter

Although copper is often subsumed with scrap alloys or brass in both the early Cape accounts (Raven-Hart 1967) and also in colonial metal analyses (Hudgins 2005: 2, 21 footnote 5), it is discussed as a separate category here (Tables 10.1, 10.2).

The Oudepost I copper utensils include a skimmer or strainer (C 1; Figure 10.1), a dish (C 2; Figure 10.2), and a barrel strap (C 3), as well as rivets and washers (C 214-226, 229, 329), nails and tacks (C 302-313), a fish hook (C 332; Figure 10.3), possible bandolier caps (C 334, 335, 342), hinges and hardware from books (C 338, 339, 343), a fork (C 345), and a hand cut spur (C 349; Figure 10.4). Twenty two copper beads from Oudepost are described elsewhere (Karklins and Schrire 1991: 67), ten of which can be broadly dated because they resemble those from the wreck of the *De Liefde* (1711) (Bax and Martin 1974; Karklins 1988). The small brass series includes clasps or hinges from books (Br 4, 9, 12; Figure 10.5) and two key escutcheons (Br 7; Figure 10.6). The bronze artifacts include a fragment of a small scissors (Bz 2), two gun sights (Bz 6, 7), a possible spigot (Bz 12), and the handle of an eating utensil initialed 'SVDM' (Bz 16; Figure 10.7). Finally there is a scrap of tin and two pewter lids (P 1, 2) off measures (Welz, 1997: 30-31, Pl. 136).

The distribution of identifiable objects is shown in Tables 10.1, 10.2, and 10.3. They are very few in number, but their presence carries important connotations about the garrison posted there. For example, book clasps and hinges probably came from Bibles or religious tracts, which, together with the archival correspondence and the presence of slate pencils, points to literate members of the garrison posted there (Schrire 1990: 13-15; Sleigh 1993: 411-468). The escutcheons might denote the presence of private property. Finally, if we exclude the burial found at Oudepost (Schrire et al. 1990), the initialled handle of a piece of flatware (Bz 16) constitutes one of only two personalised objects found here—the other being a lead cutlery handle described later in this chapter (L 19). Unfortunately, VOC records listing the occupants of the post at various times failed to turn up anyone like a Van der Merwe, let alone one with these initials (Remco Raben 1998: pers. comm.).

Carmel Schrire, "Metals and Associated Artifacts from Oudepost I, Cape" in *Historical Archaeology in South Africa: Material Culture of the Dutch East India Company at the Cape*, pp. 213–220. © 2014 Left Coast Press, Inc. All rights reserved.

Table 10.1. Oudepost I (OPI): Distribution of metal artifacts by Unit and Level (numbers)

Metal	Unit (nos.)				Level (nos.)			Total (nos.)	%
	Fort	Lodge	DP	NP	X	I	II		
Copper artifacts	31	20	-	10	12	22	17	61	3.6
Copper fragments	199	50	-	38	106	109	34	287	17.0
Brass	5	6	-	-	2	3	6	11	0.7
Bronze	14	2	-	-	4	11	1	16	0.9
Tin	1	-	-	-	1	-	-	1	0.1
Pewter	-	1	-	1	-	1	-	2	0.1
Lead artifacts	117	119	2	21	35	129	72	259	15.4
Lead shot	984	59	-	7	14	928	101	1050	62.2
Total	1351	257	2	77	174	1203	231	1687	100.0

Table 10.2. Oudepost I (OPI): Distribution of metal artifacts by Unit and Level (weight)

Metal	Unit (gms.)				Level (gms.)			Total (gms.)	%
	Fort	Lodge	DP	NP	X	I	II		
Copper artifacts	320.1	238.0	-	199.7	65.0	270.4	222.7	757.8	6.5
Copper fragments	1249.4	354.1	-	218.0	542.5	820.1	240.9	1821.5	15.7
Brass	19.4	13.3	-	-	4.9	14.5	13.3	32.7	0.3
Bronze	184.5	102.8	-	6.9	21.3	165.7	100.3	294.2	2.5
Tin	0.6	-	-	-	-	0.6	-	0.6	x
Pewter	-	4.8	-	39.5	-	4.8	-	44.3	0.4
Lead artifacts	3608.1	2962.9	120.7	638.5	358.9	4838.5	1373.6	7330.2	63.2
Lead shot	856.6	312.9	-	141.8	70.4	891.4	207.7	1311.3	11.3
Total	6238.7	3988.8	120.7	1244.4	1063.0	7006.0	2158.5	11592.6	99.9

Table 10.3. Oudepost I (OPI): Distribution of copper artifacts by Unit and Level (numbers and weight)

Metal	Unit				Level			Total (nos. & gms.)	%
	Fort	Lodge	DP	NP	X	I	II		
Copper artifacts (nos.)	31	20	-	10	12	22	17	61	17.5
Copper fragments nos.)	199	50	-	38	106	109	34	287	82.5
Total	230	70	-	48	118	131	51	348	100.00
Copper artifacts (gms.)	320.1	238.0	-	199.7	65	270.4	222.7	757.8	29.4
Copper fragments (gms.)	1249.4	354.1	-	218.0	542.5	820.1	240.9	1821.5	70.6
Total	1569.5	592.1	-	417.7	607.5	1090.5	463.6	2579.3	100.0

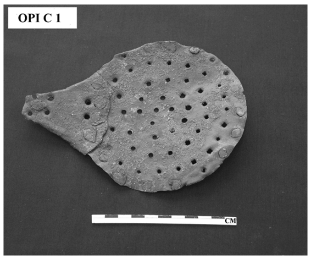

Figure 10.1. Copper skimmer or strainer from the Oudepost I (OPI) excavation (C 1). Scale in cm. (Photo C. Schrire)

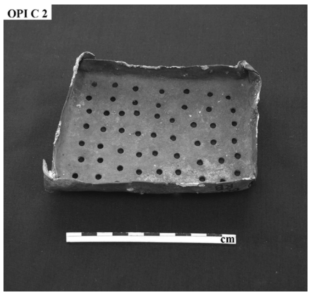

Figure 10.2. Copper dish from the Oudepost I (OPI) excavation (C 2). Scale in cm. (Photo C. Schrire)

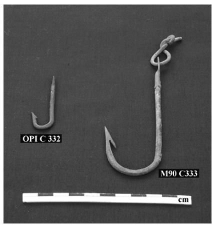

Figure 10.3. Copper/?alloy fish hook (C 332) from the Oudepost I (OPI) excavation compared with similar one (C 333) from Castle Moat (M90) excavation. Scale in cm. (Photo C. Schrire)

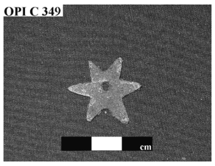

Figure 10.4. Copper spur from the Oudepost I (OPI) excavation (C 349). Scale in cm. (Photo C. Schrire)

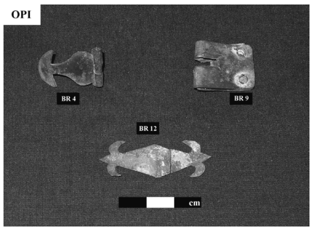

Figure 10.5. Brass clasps or hinges from books from the Oudepost I (OPI) excavation (Br 4, 9, 12). Scale in cm. (Photo C. Schrire)

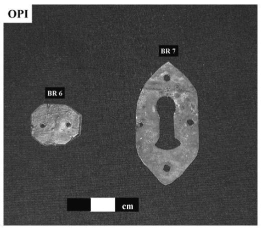

Figure 10.6. Brass octagonal plate (Br 6) and key escutcheon (Br 7) from the Oudepost I (OPI) excavation. Scale in cm. (Photo C. Schrire)

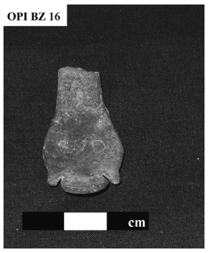

Figure 10.7. Bronze utensil handle inscribed 'SVDM' (Bz 16) from the Oudepost I (OPI) excavation. Scale in cm. (Photo C. Schrire)

In contrast to the recognizable artifacts, the vast majority of the copper collection is classified as 'Fragments' (Tables 10.1, 10.2). They constitute 82.5% by number and 70.6% by weight of the total copper finds (Table 10.3). Most of these are pieces of sheet copper, some of which was pierced and folded and then cut with shears and chisels into various shapes (Figure10.8). Some are patent scraps or cutouts echoing the extraction of squares and circles (Kelso 2006: 179). In addition, there are irregular and curved pieces that were apparently parts of kettles and pans, with one (C 195) being a leg fragment from a tripod pot.

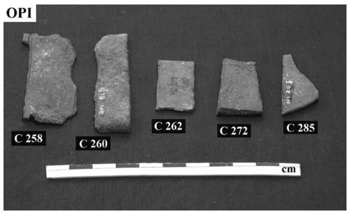

Figure 10.8. Fragments of chisel cut sheet copper possibly used in trade, from the Oudepost I (OPI) excavation (C 258, 260, 262, 272, 285). Scale in cm. (Photo C. Schrire)

Where the distribution of copper fragments at Oudepost is concerned, there are over three times as many by number and weight in the fort than the lodge (Tables 10.2, 10.3), suggesting that this may have been where metal sheets and broken metal objects were reduced to small pieces. The purpose of this might have been to patch and repair other broken objects, or to create tokens for exchange in the VOC-Khoekhoe copper trade. The Oudepost fragments resemble those found in other colonial sites worldwide, including the French Fort Pentagoet in Maine and the fort at the APVA excavation at Jamestown, Virginia (Faulkner and Faulkner 1987; Kelso 2006: 179). A recent study of trace elements using Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP-AES) shows that most of the unalloyed copper at Jamestown came from England and Sweden, with the sheet brass emanating from Continental Europe (Hudgins 2005: 43). Furthermore, although some of the scraps were undoubtedly traded, most of the material appears to have been industrial waste that was generated in English factories during the production of kettles, bowls, and lanterns, and shipped out to Virginia for processing with Virginian zinc to produce brass (Hudgins 2005: 51-52; Kelso 2006: 178-8). In the event, Virginia did not produce zinc and the venture was abandoned together with the large heaps of scrap metal that now lie buried alongside the failed crucibles (Hudgins 2005: 60-61; Kelso 2006: 181).

There is no evidence at present that the VOC shipped industrial waste to the Cape, but at the same time, no Cape collection has yet been systematically sourced. The early trade copper carried to the Cape probably emanated from European mines in Sweden, as well as from Germany and Slovakia (Hudgins 2005: 38). The Fugger family played a powerful role in the distribution of Central European copper not only throughout Europe but also in Asia. Their wealth is strikingly underscored by the discovery of an immense cargo of hemispherical copper ingots stamped with the tripod seal of the Fuggers in the cargo of a 16th century Portuguese ship that was wrecked off the Namibian coast en route to purchase pepper in Asia (Jensen 2008; Pringle 2009: 25; Werz 2011). Whether shipments such as these ever came to the VOC Cape is unknown, but Japanese copper is specified in the 17th century VOC storehouses there (Leibbrandt 1902: 275). The VOC was deeply involved as a middle-man in the Japanese copper trade in the 17th-18th centuries. It held a monopoly in South Asia, China, the Middle East, Indonesia, and India, where it shipped raw copper from Japan to factories for rendering into coinage. In fact, the importance of Asian copper to the VOC was such that the Van Imhoff, the Governor General in Batavia, referred to it as the "bride" for whom the VOC danced (Shimada 2006, 2007).

What is known for the Cape is that a booming trade in copper and brass began almost as soon as Europeans first rounded Africa in the late 15th century. Archival references document the presence of three kinds of copper (sometimes called 'brass')—native, European, and Asian. Native copper was seen by Da Gama in 1497 as small copper beads worn in the ears of the people of St Helena Bay (Axelson 1998: 24). There is mention in 1608 of a bracelet that the Khoekhoen might have made themselves (Raven-Hart 1967: 39), and red copper bracelets, listed as being on the south coast in 1595, might also have been locally traded (Raven-Hart 1967: 18). European metal might be denoted in a cattle exchange for "…a little Brasse cut out of two or three old Kettles" at the Cape (Raven-Hart 1967: 56, 59). An early source specifies that thin pieces, two inches square cut out of a kettle, were fashioned into arm rings (Raven-Hart 1967: 48). As the demand for a hard and shiny material grew, copper and iron became less valuable than brass (Raven-Hart 1967: 73). Brightness was paramount and scraps no longer sufficed; natives demanded pieces as big as their cloaks, as well as housewares like pans, basins, and skimmers (Raven-Hart 1967: 64-67, 70; Elphick 1985: 78). By 1615, the size of sheet copper in an exchange had escalated to great pieces "1 ½ feete square, or one foote at the least" (Raven-Hart 1967: 73). For what it's worth, an early reference to a copper bracelet traded at Table Bay in 1608 might actually denote an Asian ring in that it came from a Dutch ship homebound after a voyage to the East Indies (Raven-Hart 1967: 37-38), and later sources specify Japanese copper in the VOC stores (Leibbrandt 1902: 275).

Copper and brass functioned alongside alcohol and tobacco as mainstays in a cattle trade that shaped the future course of indigenous-colonial relations (see Elphick 1985; Elphick and Giliomee 1989; Heinrich and Schrire 2011; Schrire 1995, 2009; see also Chapter 3). It began in 1497 with the purchase of meat for metal from the indigenous Khoekhoen (Axelson 1998: 23-25). Iron was initially preferred by the Khoekhoen because of its resilience when used as knives and weapons, but once the VOC settled at the Cape, indigenous people preferred to trade for copper, which was soft and malleable and could be fashioned into highly visible jewelry (Elphick 1985: 77, 166-67). The early diaries document a wide variety of forms including wire, staves, plates, bars, and beads (Leibbrandt 1901: 7, 38, 81,123, 193) as well as red plate and yellow bar copper (ibid.: 123). So intimately was the cattle trade linked to copper that strings of copper beads, like glass beads and twists of tobacco, were meted out as '*quispelgreijn*,' an amalgam of '*quispel*' (the tuft at the end of a cow's tail), and '*greijn*' (a bead), denoting that the payment, whether in beads or tobacco, was measured as the length from the tip of the tail, over the back, to the front of the bartered animal's horns (Leibbrandt 1901: 99; Thom 1958: 432-433; see also Karklins and Schrire 1991). Our most specific listing of the metal trade comes from an 1676 inventory of the Castle warehouses, made several years after Oudepost I was manned, which includes vessels like kettles, cooks' pans and spoons, watering can (Leibbrandt 1902: 274), as well as "6264 lbs. copper, viz.: 787 lbs plate copper, consisting of 651 lbs. small yellow copper plates; 136 red do.; 2620 lbs. wire copper, e.g., 1891 lbs. yellow and 720 lbs. red; 262 lbs. old copper; 530 lbs. chips; and 2065 Japan rings" (ibid.: 275). As though this were not enough, the record also specifies two "large iron scissors for cutting copper" (ibid.: 274).

These sources never document industrial waste copper such as was shipped to Jamestown. The Oudepost copper was always intended for trade, as can be seen in the first list of provisions that were dispatched to the outpost and that itemizes 140 lbs of copper (50 lbs sheet, 90 lbs wire) and seven copper kettles (VOC 4004; see Schrire 1995: 94-95). In 1672, 100 chains of copper beads were supplied to the post (VOC 4008 f. 453), and a further 1000 copper beads went off in October 1700 (VOC 4047 f. 539v). An inventory made at the post in 1729, three years before its relocation, listed a single copper kettle, suggesting that earlier vessels had probably disappeared into the bottomless pit of the exchange system (Western Cape Archives and Records Service LM 20: 121).

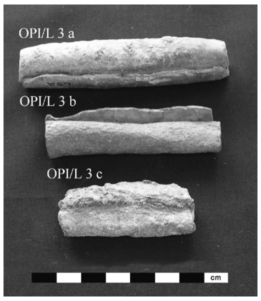

Figure 10.9. Rolls of sheet lead from the Oudepost I (OPI) excavation (L 3a-c). Scale in cm. (Photo C. Schrire)

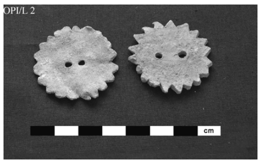

Figure 10.10. Lead toys from the Oudepost I (OPI) excavation (L 2a,b). Scale in cm. (Photo C. Schrire)

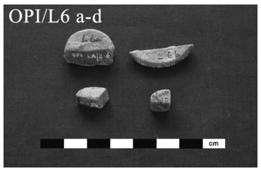

Figure 10.11. Lead discs from the Oudepost I (OPI) excavation (L 6a-d). Scale in cm. (Photo C. Schrire)

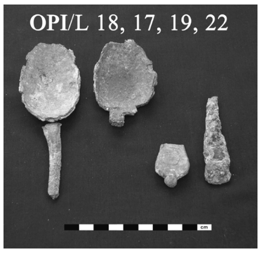

Figure 10.12. Lead cutlery or flatware from the Oudepost I (OPI) excavation (L 18, 17, 19, 22). Scale in cm. (Photo C. Schrire)

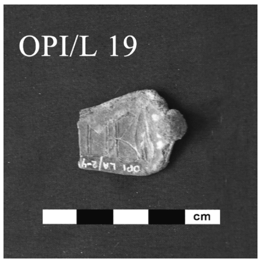

Figure 10.13: Close-up of lead handle from the Oudepost I (OPI) excavation (L 19) inscribed 'M C X.' Scale in cm. (Photo C. Schrire)

Lead

The lead remains from Oudepost include finished artifacts and manufacturing debris (see catalog; see also Tables 10.1, 10.2). Raw material includes rolled (L3) and unrolled (L4) sheets (Figure 10.9) as well as 133 lumps of lead slag (L16) that vary in size from tiny splatters weighing less than a gram to immense lumps, two of which weigh 604.2 gm (L 248) and 1761.9 gm (L 249). Smelting is evident in 49 fragments of bullet sprues (L 9) that emanate from the bullet molds described later in this chapter. In addition there are two lids (L1, L14) that possibly come from measures and that are comparable to the pewter examples (P1, P2) listed earlier (see Welz 1997: 30-31 Pl. 136). Two possible whirligigs, a toy called '*woer*' in Afrikaans and '*snorrebot*' in Dutch (L 2a, b), are present (Figure 10.10), as are a pierced disc (L7) and four cut sections of discs (L 6) that might have served as counters or weights (Figure 10.11). Rectangular fragments (L10) are also present. There are two musket balls with drilled holes (13a, b) that might have been fishing weights or decorative objects, and six folded oval pieces (L 15a-f) that might be snaplocks (Geoffrey Egan 2007, pers. comm.) In addition, there are six pieces of cutlery, including three spoons (L17, 18, 22; Figure10.12). An archival source notes the presence of spoons at the post (LM20, 121) and the excavated objects look as though they might have been locally made, but in the absence of spoon molds, this cannot be verified. One handle (L 19) that carries the initials 'M C' over an 'X' (Figure 10.13) may represent the second personalised object from the site, the first being another handle, Bz 16, which was described earlier in this chapter. A single lead bead made from a narrow strip of sheet lead rolled into a cylinder is described elsewhere (Karlins and Schrire 1991: 67).

The largest numerical category of lead artifacts includes 1050 fragments of lead shot. Four types are present, including cast shot, made in a mold (892 fragments: 85%); cut shot, made from strips or rolls for later rounding (42 fragments: 4%); Prince Rupert shot, made using arsenic (29: 2.8%); and dribble, made in a ladle containing dust (27: 2.6%). The cut strips in the catalog listing (L 8, 12) may have been on their way to becoming cut shot.

We can make a guarded estimate of the size or caliber of the firearms used here from the size of the shot. It is hard to estimate precisely the size of the gun that fired each ball, because shot expands after firing, as seen in a few patently misshapen balls (L 13a, b). Bearing in mind that small shot need not denote a tiny gun in that the bearer might cram small shot into a large barrel, it would nevertheless seem that there were at least four sizes of guns being used here, namely, pistols (0.19-0.52″), carbines (0.53-0.65″), muskets (0.69-0.75″), and ramparts (0.83-0.92″). The vast majority of the shot is of the smallest, pistol size (0.19″) BBB shot (E. H. H. 1961). This is consistent with the analysis of the Oudepost gunflints, where 62.2% might have been have been used in such pistols (Chapter 11; Table 11.5). It also conforms with the associated bullet molds (discussed in the next section), all of which have very small shot holes (0.19-0.25″).

Table 10.4. Oudepost I (OPI): Distribution of lead artifacts by Unit and Level (numbers and weight)

Metal	Unit				Level			Total	
	Fort	Lodge	DP	NP	X	I	II	(nos. & gms.)	%
Lead artifacts (nos.)	117	119	2	21	35	129	72	259	19.8
Lead shot (nos.)	984	59	-	7	14	928	101	1050	80.2
Total	1101	178	2	28	48	1057	173	1309	100.0
Lead artifacts (gms.)	3608.1	2962.9	120.7	638.5	358.9	4838.5	1373.6	7330.2	84.8
Lead shot (gms.)	856.6	312.9	-	141.8	70.4	891.4	207.7	1311.3	15.2
Total	4464.7	3275.8	120.7	780.3	429.3	5729.9	1581.3	8641.5	100.0

The distribution of lead in the site mirrors that of copper to some extent (Table 10.4). It predominates in the fort by numbers, mainly due to a marked concentration of small shot there, which constitutes 79% of the shot in the entire site. The presence of several large melted pools in the lodge, especially in Level I, tips the distribution by weight and points to smelting in both the fort and lodge.

Further insight into the lead assemblage at Oudepost may be found in the archival records. Lead was used for paint, window glazing, bullets, and repairs. It served as a base for ceramic glazes, and a monthly supply list of the Company dispatches 12 pounds of "lead…to the potters" (ARA 1684: 676; see Chapter 5). Archival records list the stocks of lead held at the Castle, as well as those consigned to the post. The Castle warehouse lists of 1676 specify "22,077 lbs lead e.g. 10,967 lbs. '*Schuyt*' lead, 11,110 lbs. flat do" and specify 3078 lbs flat lead and 400 lbs white lead (Leibbrandt 1902: 275). These technical names probably refer to lead used for mending ships (*schuyt* is a small flat bottomed ship) and for paint derived from corroding lead into white lead. The requisitions for the Saldanha Bay outpost, Oudepost I, between 1669 and 1729 include shipments weighing between 15 lbs and 100 lbs and specify 100 lbs of lead 'pigs,' or ingots, in 1701 (VOC 4047 f. 586), 30lbs of flattened lead in 1701 (VOC 4047 F, 586), and 100 lbs to mold bullets in 1669 (VOC 4004 f. 591v-592v).

Stone Molds

The collection of stone molds was originally examined by Professor Donald Baird of Princeton University in 1988, whose technical comments are incorporated here.

There are 18 fragments labelled 'BM' for 'Bullet molds' in the stone molds catalog. Some may not have been parts of molds but are included here for want of a better category. They are all made of fine grained shale or slate, ranging in color from dark grey to grey/green, as well as one reddish example. All are broken, some more than others, but all have distinguishing holes and grooves. Their source is not certain; they may have been imported, but since similar rocks are present at the Cape and many of the molds are roughly made, they might have been produced at the Cape, if not on-site.

The most complete examples (B 1, 3) have holes cut with a professional cherry or bulbar file, with the sprue and ball apparently cut at the same time (Figures 10.14, 10.15). Many have irregular spacing, and incomplete holes and wells, and in one case (BM 5) the wells are way out of round, suggesting that the cherry wobbled in inexpert hands (Figure 10.16).

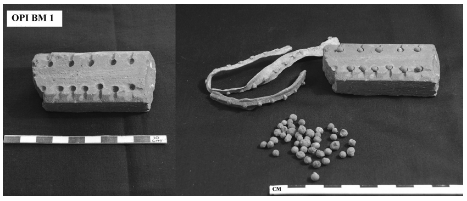

Figure 10.14. Bullet mold from the Oudepost I (OPI) excavation (BM 1), shown with associated shot and pulls. Scale in cm. (Photo C. Schrire)

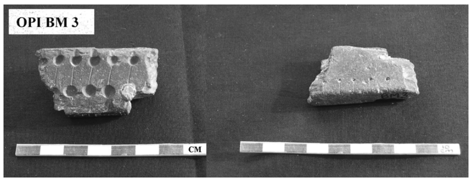

Figure 10.15. Bullet mold from the Oudepost I (OPI) excavation (BM 3). Note that one hole is spiked with lead. Scale in cm. (Photo C. Schrire)

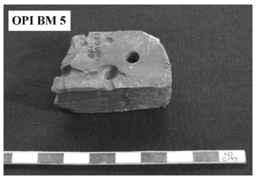

Figure 10.16. Bullet mold from the Oudepost I (OPI) excavation (BM 5). Peg hole visible. Scale in cm. (Photo C. Schrire)

The size of the shot produced in the unweathered holes ranges from about 0.125" to 0.25", which is consistent with the small shot and lead pulls (L 9) found on site. As noted earlier, the size of shot that would have been produced in these molds is way below the normal caliber (0.52") of pistol shot and was probably crammed into guns of various sizes. The distribution pattern is not very clear, and seven have no definite provenance. The remaining 11 are distributed mainly in the fort.

The presence of bullet molds is consistent with the abundant evidence of lead smelting in this site, as well as with many associated artifacts including rolls and sheets of lead, bullet pulls, sprue, gun sights (B7, 8), snaplocks (L 15), and numerous gunflints. The analysis of fauna points to a plethora of wild animals that must have been taken with guns (Cruz Uribe and Schrire 1991). Archival records attest to the provision of lead, and the original supply list specifies six bullet molds and 100 lbs of lead to mold bullets (VOC 4004). Exactly what these molds looked like is not known, though a variety is listed in the stores of the Castle, including "30 moulds, e.g. 8 metal bullet moulds, two for shot, and 22 single bullet moulds" (Leibbrandt 1902: 272), as well as "two copper cartridge moulds" (ibid.: 273).

Conclusion

The metal remains at Oudepost include a number of raw materials. A cursory examination of the unconserved iron from the site showed the presence of a wide variety of materiel including pulleys, pintles, locks, cannon balls, trowels, a mattock, and a shovel (Schrire 1995: 94). A future scholar might well expand our grasp of the post with a detailed analysis of those remains. The non-ferrous artifacts described in this chapter include objects made elsewhere for use on the post, as well as copper, lead, and stone molds that were used to manufacture artifacts on site. The collections attest to artifact repairs and maintenance and to shooting, hunting, fishing, and trade, as well as to certain aspects of adornment like belts and laces (see Chapter 9). The key escutcheons and initialled items of flatware speak of personal and possibly private property. Reading and literacy is implied by the presence of book (possibly Bible) hardware. Books were more common in early Cape households than in later 18th centuries ones (Worden et al. 1998: 74), but it is nevertheless surprising to find such remains on a distant outpost of what was already a distant shore. Their presence confirms the well-known aphorism of VOC employees as 'soldiers of the pen,' and is in keeping with the fact that the post sent regular bulletins back to the Castle (Schrire 1990: 13-15; Sleigh 1993: 411-468).

The small shot is particularly important where the relative abundance of bird species in the site is concerned (Schrire 1995: 107). Forty two species were identified according to their bones, with ostrich eggshell fragments raising the count to 43. The predominant species are Jackass Penguin, Cape Gannet, Cape Cormorant, Greater and Lesser Flamingo, Egyptian Goose, South African Shelduck, Cape Teal, Cape Francolin, and Kelp Gull (Graham Avery 1989: pers. comm.). The list contrasts that found on a precolonial midden at Stofbergsfontein, about two kilometres away, where only 13 species of birds appear (Robertshaw 1978: 144-146). A radiocarbon date of main horizon of the midden places it around 1500 years ago when a similar environment prevailed in the region (Robertshaw 1978: 143). This suggests that although the occupants of both sites had access to similar resources, the use of guns and small shot at Oudepost quadrupled the hunting success as seen in the relative diversity of prey taken there.

The supply of materiél to the outpost raises two final issues. The copper trade, unlike the exchanges of consumable like liquor and tobacco, involved a commodity that might be hoarded and traded as capital (Elphick 1985: 166-67). It is possible that it tipped the scales of wealth in indigenous groups, allowing men to buy more cattle or get more wives. The actual amount traded contrasts strongly with the number of metal artifacts recovered in our excavations, begging the question of where it all ended up. Some may have been transferred to the new post which was established in 1732, but the rest was probably broadcast widely across the land, scattered across the domain of the former pastoral Khoekhoen, and is waiting to be discovered in the archaeological traces of the villages, huts, and caves that were swamped in the bow wave of European settlement.

Acknowledgments

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CHAPTER 11

Analysis of Gunflints from VOC Sites at the Cape

Jeffrey J. Durst

Introduction

In a collection of 520 lithic samples from the combined excavations at the Castle of Good Hope and Oudepost I, 196 have been identified as being complete enough for cataloging as intact or fragmentary gunflints. The collection offers a unique opportunity to examine gunflints brought to South Africa primarily through the Dutch East India Company or VOC trade beginning in the mid-17th and continuing into the late 18th century. An examination of the collection identified samples that can be grouped into several categories based primarily on distinguishing characteristics indicative of their differing sources of manufacture.

Research conducted on the gunflints from these sites focused on three primary objectives. The first was to sort the collection into various categories based on a detailed attribute analysis. Previous researchers (Hamilton and Emery 1988) had established acceptable methods for categorizing gunflints based on size and morphological characteristics, and where applicable, gunflints from the Cape sites were categorized in a like manner to facilitate cross comparisons (see catalog). The second aim was to interpret what the attribute analysis was indicating about the process of production, and what if anything, this might tell us about where the gunflints were produced. Three previously analyzed collections were selected as a comparative data set: the first from the shipwreck of the French vessel *La Belle* (1687) recovered off the coast of Texas (Durst 2009: 20), the second from the French site of Fort St. Louis established in 1685 along the Texas coast (ibid.: 20), and the third from the English site of Fort Frederica (1736-42) located on St Simon's Island off the coast of Georgia (Hamilton and Emery 1988: 28). All three collections are roughly contemporaneous with the Cape sites, with comparable ratios of spall- to blade-type gunflints. The third objective was to try and establish the country of manufacture using methods that would be scientifically verifiable, as opposed to the intuitive methodologies used in several previous efforts to source gunflints (Witthoft 1966; Hamilton and Emery 1988).

Historical Background

The earliest production of gunflints is poorly documented and little is known of their production centers. The need for gunflints arose around the 1530s with the invention of the German snaphaunce (Brown 1980: 68), followed by the Spanish snaplock, which was essentially a simplified version of the original snaphaunce (Lavin 1965: 148).

The basic flintlock mechanism used at the Dutch sites of the mid-17th to late 18th century appears to have been developed in France around 1630 (Held 1970: 83). By the mid-1600s, its production was commonplace throughout much of Europe. The newly refined and somewhat standardized mechanism demanded a more uniformly shaped flint for maximum performance (Lavin 1965: 159). While exact information regarding the early production of gunflints is very sparse, it appears that a burgeoning cottage industry soon emerged to fill the increasing demand for the uniformly shaped gunflints. By 1661 the British Board of Ordnance was placing thousands of orders, and by 1685 it was specifying particular sizes to be used in pistols, carbines, and muskets (Forrest 1983: 481).

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France and England were the two European countries with major production during the late 17th century and through the 18th century. While Brandon was the center of English, blade-type production starting around the time of the Napoleonic War (ca. 1790), earlier production of spall-type gunflints is believed to have been located elsewhere in England, where "…some twenty wedge [i.e., spall-type] manufacturing sites have been located in the south of England" (de Lotbiniere 1980: 155).

If the predominance of spall-type over blade-type gunflints on most 17th century colonial sites is any indicator of market forces, it might be assumed that the nation that produced this type of gunflint was the controlling force at that time. After this time, and through most of the 18th century, the French apparently dominated much of the world market with their production of blade-type gunflints (White 1976: 27). In addition, the discovery of large nodules of very pure flint buried in veins 20-40 ft below the surface, just outside the village of Brandon, Sussex, allowed the English to produce blade-type gunflints and gain control of the market.

Previous Research

Witthoft published an early history of gunflint manufacture and distribution in which he proposed a four-stage chronology of European gunflint production (1966). The earliest stage gunflints, termed 'Nordic,' were produced from Danish flint, extensively worked on both sides, and were generally square or rectangular in shape (Witthoft 1966: 23-24). The second stage was attributed to Dutch makers primarily on the basis of the range of color in the source materials, and included 'wedge shaped' gunflints. The third stage was attributed to French makers and was characterized by 'D-shaped' or 'horseshoe-shaped' gunflints, manufactured using blade technology. The final stage was assigned to the English, who used blade technology, but who, unlike the French, did not round the heels of the gunflints.

Subsequent research has greatly modified several of Witthoft's conclusions. First, the 'Nordic,' bifacially worked gunflints that he believed to have been made from Danish source materials have since been recovered from numerous sites in the Americas and are now believed to have been made from locally procured sources, utilizing the same technology evident on lithic tools made by Native Americans (Kent 1983: 28-29). Second, there is no evidence to support Witthoft's belief that the Dutch were actually producing gunflints themselves; instead, historical accounts suggest that the Dutch were purchasing gunflints from any available source and redistributing them for profit (Clarke 1935: 40; Forrest 1983: 51). Third, the 'D-', or 'horseshoe-shaped' gunflints that were manufactured using blade technology are probably French, but the French also produced blade-type gunflints that were not rounded at the heel. Finally, Witthoft's assertion that the English blade-type gunflints were not rounded at the heel appears at this time to be correct.

Analysis of Gunflints from VOC Sites at the Cape

The Cape collections include gunflints from three sites. Two come from locales in the Castle of Good Hope, namely the Van der Stel Moat (M90) and the Old Granary (F2), and the third comes from the VOC outpost at Oudepost I (see Chapter 2). These sites overlap in time with the Moat (M90) dating from about 1690-1740, the Old Granary (F2) series from the late 17th-early 18th century, and Oudepost I from 1669-1732 (see Chapter 2 for details). Catalogs and color images of figures appear in the enclosed CD.

Fragments recognizable as gunflints or by-products of gunflint manufacture, include 151 from the M90, seven from F2, and 362 from Oudepost I. Of these, 196 are listed in our catalog. They display two primary manufacturing techniques—spall-type and blade-type—with most being attributed to European workshops where gunflints were being mass-produced. The majority of the raw materials used to produce the gunflints from both the Moat and Oudepost I sites appear to be identical, and the overall similarity of production types suggests that both sets come from shipments imported to the Cape by the VOC. The exceptions include seven gunflints from Oudepost I made of local silcrete. They appear to utilize a more expedient technology, and are generally seen to lack the characteristics associated with mass production. The presence of microscopic traces of iron on four of these confirms their use as gunflints or strike-a-lights (see Schrire and Deacon 1989: 108-109, Fig. 4).

Distribution

The majority of the gunflints recovered from the Cape sites fit into Witthoft's 'Dutch, wedge shaped' category, now commonly referred to as 'spall-type' (Table 11.1). The Van der Stel Moat collection includes 42 (65.6%) spall-type and 22 (34.4%) blade-type gunflints (Figures 11.1, 11.2). There are only two gunflints in the Old Granary collection. The Oudepost I collection includes 72 (55.4%) spall-type and 58 (44.6%) specimens, produced using the blade technique (Figures 11.3, 11.4).

The distribution of different types of gunflints within the sites is shown in Tables 11.2, 11.3, and 11.4. Gunflints and fragments are scattered throughout the Van der Stel Moat (M90) deposit and are concentrated in the deepest and richest level A2, with no apparent sequence of spalls and blades (Table 11.2).

Table 11.1. Incidence of spall- and blade-type gunflint types at Cape sites

Site	Gunflint Type				Total	
	Spall		Blade			
	Nos.	%	Nos.	%	Nos.	%
Van der Stel Moat (M90)	42	65.6	22	34.4	64	100.0
Old Granary (F2)	1	50.0	1	50.0	2	100.0
Oudepost I (OPI)	72	55.4	58	44.6	130	100.0
Total	115		81		196	

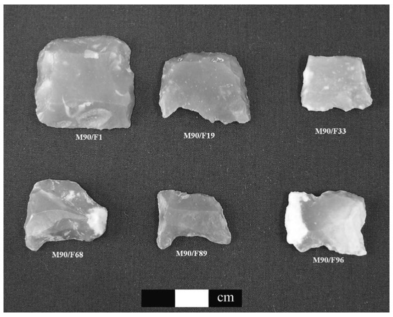
M90/F1
M90/F19
M90/F33
M90/F68
M90/F89
M90/F96
cm

Figure 11.1. French, blade-type gunflints from the Castle Moat (M90) excavation. Scale in cm. (Photo C. Schrire)

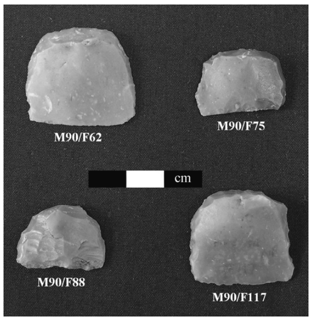
M90/F62
M90/F75
cm
M90/F88
M90/F117

Figure 11.2. English, spall-type gunflints from the Castle Moat (M90) excavation. Scale in cm. (Photo C. Schrire)

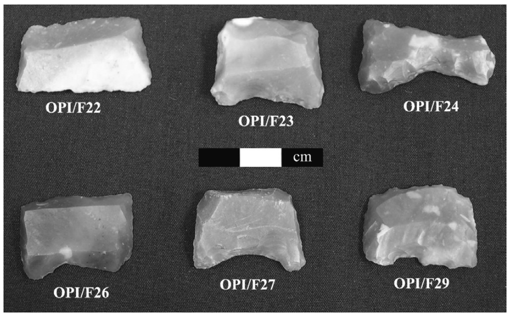
OPI/F22
OPI/F23
OPI/F24
cm
OPI/F26
OPI/F27
OPI/F29

Figure 11.3. French, blade-type gunflints from the Oudepost I (OPI) excavation. Scale in cm. (Photo C. Schrire)

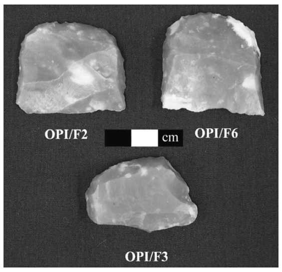
OPI/F2
cm
OPI/F6
OPI/F3

Figure 11.4. English, spall-type gunflints from the Oudepost I (OPI) excavation. Scale in cm. (Photo C. Schrire)

Table 11.2. Van der Stel Moat (M90): Distribution of gunflint types by Level

Level	Gunflint Type						Total	
	Spall		Blade		Unknown			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%
A	1	2.4	-	-	5	5.7	6	4.0
A1	7	16.7	5	22.7	17	19.5	29	19.2
A2	21	50.0	9	40.9	19	21.8	49	32.5
B	4	9.5	2	9.1	6	6.9	12	7.9
C	3	7.1	3	13.6	28	32.2	34	22.5
NP	6	14.3	3	13.6	12	13.8	21	13.9
Total	42	100.0	22	99.9	87	99.9	151	100.0

Table 11.3. Oudepost I (OPI): Distribution of gunflint types by Unit

Unit	Gunflint Type						Total	
	Spall		Blade		Unclear			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%
Fort	48	66.7	31	53.4	154	66.4	233	64.4
Lodge	18	25.0	20	34.5	59	25.4	97	26.8
DP (Dump)	-	-	1	1.7	3	1.3	4	1.1
NP (Non-Prov)	6	8.3	6	10.3	16	6.9	28	7.7
Total	72	100.0	58	99.9	232	100.0	362	
%	19.9		16.0		64.1			100.0

Table 11.4. Oudepost I (OPI): Distribution of gunflint types by Level

Level	Gunflint Type						Total	
	Spall		Blade		Unclear			
	Nos.	%	Nos.	%	Nos.	%	Nos.	%
X	11	16.7	3	5.9	24	11.3	38	11.5
I	35	53.0	32	62.7	134	62.9	201	60.9
II	20	30.3	16	31.4	55	25.8	91	27.6
Total	66	100.0	51	100.0	213	100.0	330	100.0
%	20.0		15.5		64.5			100.0

Gunflints found at Oudepost I are markedly concentrated in the Fort (Table 11.3) and in Level I (Table 11.4), but the distribution of spall-types and blade-types is not correlated with place (Table 11.3) or time (Table 11.4)

These conclusions are consistent with wider findings. The spall-type gunflint was originally thought to pre-date the blade-type gunflint (Witthoft 1966; Hamilton 1968; White 1975). Contrary to this view, recent findings suggest that both types occur in association at several sites, dating earlier than 1685, so that the time of transition from spall-type production to blade-type production may be difficult to pinpoint (Honerkamp and Harris 2005: 105). A number of sites have produced evidence for the early production of blade-type flints, including Chicoutimi, Québec, Canada, where they were found in association with spall-type gunflints in a sealed context with a *terminus post quem* of 1663 (Blanchette 1975: 43). Likewise, at Fort Pentagoet, Maine (1635-1674), 65% of the gunflints recovered were of the blade-type (Faulkner 1986: 83), and early blade-type gunflints were also recovered from the sealed context of *La Belle* shipwreck located off the Texas Gulf Coast, dating to 1687.

The occupation dates for Oudepost I (1669-1732) post-date the presumed date for the initial production of blade-type gunflints, so it is of no surprise to find that both spall-type and blade-type gunflints appear together here. In the Castle Moat collection, the ratio of spalls to blades is 2:1 and blades constitute 34% of the recognizable flints there (Table 11.2). At Oudepost, the ratio of spalls to blades is 1.2:1 and blades make up 45% of the recognizable gunflints there (Table 11.3). These figures may be compared to those from other contemporaneous colonial sites in the New World. At the lower end of the spectrum the *La Belle* (1687) shipwreck collection contained only 7% blade-type gunflints, but the associated terrestrial site of Fort St. Louis contained 32% blade-type gunflints (Durst 2009). A recent examination by the author of 482 specimens from the site of Fort Frederica showed that blade-type flints constitute 33.4% of the collection, which corresponds more closely with the Cape sites.

Raw Material

The blade- and spall-type gunflints recovered from the two South Africa sites were produced from different source materials. The spall-type gunflints have a broader spectrum of colors, ranging from light grey to an almost black color and from light tan to dark brown. Color has generally been found to be of little assistance in sourcing gunflints to their origins of production due to broad variations being noted among samples from a common source (Luedtke 1992: 118). Conversely, chert samples of visually identical material have been discovered from different sources across Western Europe and Great Britain. The blade-type gunflints from the Cape collections resemble those from *La Belle*, Fort St. Louis, and Fort Frederica, all of which were made from a nearly translucent, honey-colored chert. The exception to this rule came from several dark grey flints from *La Belle*; however, testing them in a solution of hydrogen peroxide showed that they were the same honey-colored chert as the examples from Fort St. Louis and, thus, that they had acquired their present color due to exposure to certain underwater contaminants for a period of 300 years (Durst 2009: 22).

Size

The gunflints from the Castle Moat and Oudepost I are sorted in the catalogs into four size-related categories based on parameters that delineate size according to width as measured from side to side (Hamilton and Emery 1988: 20). Only those samples which retain enough of their original conformity were included in these calculations. Of the 196 samples from the two South Africa sites, only 140 were deemed sufficiently intact to be measured (Table 11.5). While the size of the gunflints in these collections offers little evidence toward determining their source of production, it offers a certain degree of insight regarding the types of arms that were most likely to correspond to these sizes.

Hamilton and Emery relate these size categories to their use in different types of guns, saying:

> Musket flints are more than 34 mm from side to side. Fowler or carbine flints are between 34 and 28 mm from side to side. Trade gunflints are between 28 and 20 mm from side to side. Flints that are less than 20 mm can be from either trade guns or pistols (1988: 21).

Overriding this seemingly rigid categorization is a certain amount of overlap in the sizes of gunflints that would make a particular type of flintlock mechanism fire adequately. In the Cape collections, only one gunflint (OPI-F2) was larger than 34 mm and falls into Category 1. According to Hamilton and Emery (1988: 20), "[f]lints larger than 34 mm are definitely military, but the probabilities are that many flints in the upper ranges of categories 1 and 2 could have served equally well in the French military locks of the period." Category 2 contains nine gunflints from 28 to 33.9 mm in width, which would fit Hamilton and Emery's description of gunflints suitable for use in French military locks and would overlap with use in fowlers as well. Forty two gunflints fall into Category 3, which ranges from 25 to 27.9 mm in width. Hamilton and Emery suggest that flints of this size would be best suited for use in trade guns. The fourth category of gunflints, ranging from 18 to 24.9 mm in width, contains 88 specimens. Those smaller than 20 mm are possibly for use in pistols but might also have been used in trade guns (20 to 28 mm), according to Hamilton and Emery (1988: 21).

The size range for gunflints recovered from the Cape sites may be compared with those from the *La Belle* (1687) shipwreck and from Fort Frederica (Table 11.6). Whereas *La Belle* has smaller flints similar to the pattern from the Cape sites, Fort Frederica has a much larger percentage of larger gunflints falling into Category 1 and Category 2, possibly indicating that the English soldiers there were outfitted with a higher percentage of 'military' arms.

Table 11.5. Distribution of size range for gunflints at Cape sites

Site	**Gunflint Size (Category: Range in mm)**								**Total**	
	Cat. 1: 34 mm +		**Cat.2: 28-33.9 mm**		**Cat. 3: 25-27.9 mm**		**Cat. 4: 18-24.9 mm**			
	Nos.	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**
Van der Stel Moat (M90)	-	-	2	5.0	12	30.0	26	65.0	40	100.0
Old Granary (F2)					1	50.0	1	50.0	2	100.0
Oudepost I (OPI)	1	1.0	7	7.2	29	29.6	61	62.2	98	100.0
Total	1	0.7	9	6.4	42	30.0	88	62.9	140	100.0

Table 11.6. Distribution of size range of gunflints from *La Belle* (1687) and Fort Frederica

Site	**Gunflint Size (Category: Range in mm)**								**Total**	
	Cat. 1: 34 mm +		**Cat.2: 28-33.9 mm**		**Cat. 3: 25-27.9 mm**		**Cat. 4: 18-24.9 mm**			
	Nos.	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**	**Nos.**	**%**
La Belle (1687)	-	-	95	29.9	132	41.5	91	28.6	318	100.0
Fort Frederica	128	29.5	205	47.1	61	14.0	41	9.4	435	100.0

Sourcing

A major problem in determining the various early sources for the production of gunflints from Europe is the homogeneity of the source material across much of Great Britain and Western Europe. The primary source for flint in this region is the Upper Cretaceous chalk that covers roughly two-thirds of southern England, extending northward across much of northern East Anglia, Lincolnshire, and southern Yorkshire, and even beyond, covering a large portion of central northern France as well as portions of Italy and other western European countries (Rockman et al. 2003).

Until very recently, the only means for assessing the source of spall-type gunflints found in the New World was to use criteria established by T. M. Hamilton and his various coauthors. Hamilton's criteria for gunflints from Fort Michilimackinac, an early 18th century French fort constructed along the southern shore of the Straits of Mackinac in the Great Lakes region of North America, and Fort Frederica were based primarily on color, luster, quality of the rock, and the presence or absence of pressure flaking along the sides and heel of the gunflint (Hamilton and Emery 1988: 28). Thus, a French spall-type gunflint would be of good, uniform quality, mined flint, mostly brownish but ranging in color from "…a gray through gray-brown to a light brown, then through a darker brown and eventually merging into black" (Hamilton and Emery 1988: 30). In contrast, an English spall-type gunflint would be made from an excellent black flint with no gloss, a minimum amount of retouch around the edges, and large flake scars on the heel. The main problem with the classification is that the specific chert sources have not been verified.

This may now be addressed using Inductively-Coupled Plasma Mass Spectrometry (ICP-MS). ICP-MS is a type of mass spectrometry in which a sample material is atomized and ionized in a charged argon gas torch in order to detect almost the full suite of elements in the periodic table at concentrations as low as a few parts per million (Rockman et al. 2003: 3). ICP-MS is not a new technology, but improvements to the process have only recently increased its applicability to the problem of sourcing lithic materials. The two methods of preparing samples for testing are laser ablation and acid digestion. Laser ablation (LA-ICP-MS) is virtually nondestructive and is gaining in popularity over acid digestion, which results in the obliteration of the sample. Probably the most significant recent advance in LA-ICP-MS technology is the reduction of changes in the operating parameters, which previously fluctuated from one run to the next. Additionally, LA-ICP-MS now has "the ability to reproduce data generated by other bulk analytical techniques" (Speakman and Neff 2005: 4).

Researchers have gathered core materials from a broad spectrum of potential source locations of gunflint production in France, England, and Denmark to serve as a data base in identifying the origins of the gunflints from colonial sites in the Americas. These core samples, along with 150 gunflints from the sites of *La Belle* shipwreck, Fort St. Louis, and Fort Frederica, were sent to the Institute for Integrated Research in Materials, Environments and Societies (IIRMES) at California State University, Long Beach, for LA-ICP-MS testing in order to determine if trace-element levels found in the sample set would be high enough to identify potential European flint sources. Because the European source samples submitted for testing were relatively few in number, the IIRMES lab included results from previously tested European flint sources. French, British, and Danish source areas were represented in substantial numbers, permitting a reliable assessment of the range of chemical variation within each area.

Historical documentation strongly suggests that France and England are the two most likely sources for gunflints in the VOC sites at the Cape of Good Hope. Twenty-four gunflints from Oudepost I were tested against this preexisting data set to determine if there was any congruity in production source locations based predominantly on concentrations of uranium, yttrium, and cerium. The results are shown in Figures 11.5 and 11.6 and in the catalog under 'Source.' The first group (Texas Group 1) includes only samples from the site of Fort St. Louis and consists of gunflints believed to have been produced at the site by the resident Spanish soldiers or by nonmilitary residents, conceivably from core material gathered locally. This group showed significantly higher levels of uranium and, as suspected, displayed no overlap with submitted European source materials or with

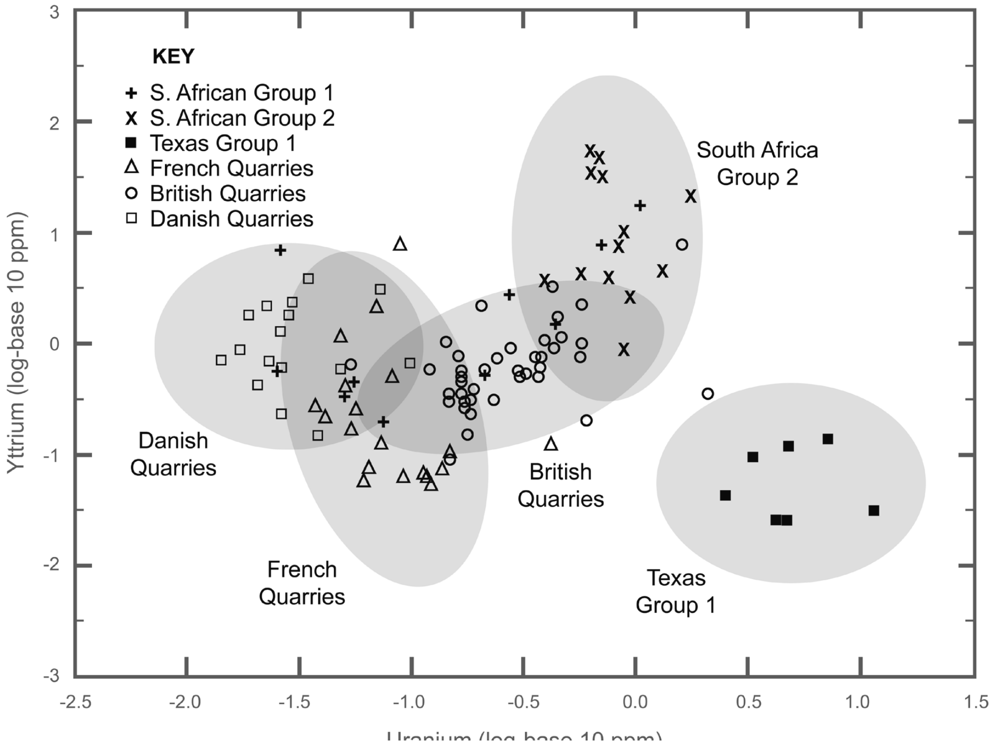

Figure 11.5: Bivariate plot comparing trace element levels of uranium and yttrium in the samples. (Graph after Neff 2007)

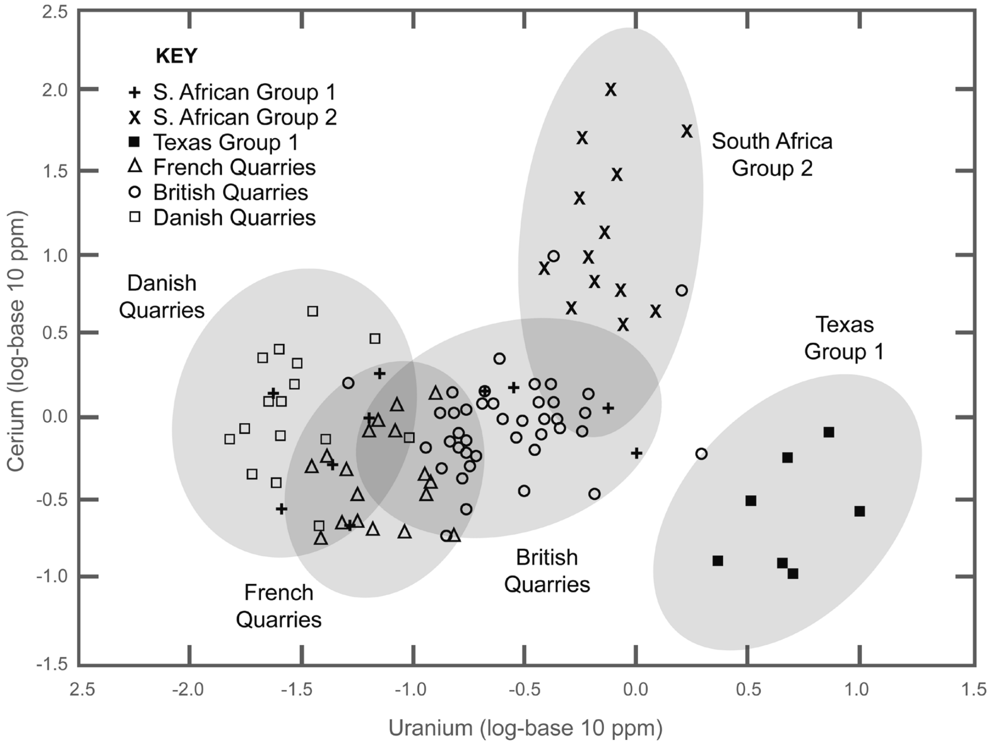

Figure 11.6: Bivariate plot comparing trace element levels of uranium and cerium in the samples. (Graph after Neff 2007)

the tested Oudepost I samples. In contrast to this, the South African Group 1 contains five blade-type gunflints, all blonde in color (OPI-F11, F18, F29, F33, F58) and six spall-type gunflints (OPI-F61, F62, F68, F73, F74, F95). The five blonde specimens cluster within the ellipse that indicates a 90% statistical likelihood of association with the French quarry samples, and the trace element levels for these five samples define a virtually identical range that may be attributed with a high level of confidence to France and perhaps even to the specific quarry site in Meusnes (Neff 2005). The six spall-type gunflints in Group 1 fall outside the ellipse indicating association with the French quarry site. The two blade-type specimens found in Group 2 (OPI-F26, F99) did not group with the French quarry samples and were not visual matches with the blonde samples, and as they grouped outside the French ICP ellipse, it is likely that they derive from a different source. The spall-type gunflints found in South Africa Group 2 from Oudepost I (OPI-F41, F46, F59, F63, F65, F72, F82, F92, F93, F96, F101) cluster within a bivariate ellipse indicating a 90% likelihood that they derive from a common source. As this group has higher yttrium and cerium concentrations than most European quarry samples tested, it is suggested that they derive from a previously untested source. Given their overlap with British quarries, this is currently the closest match.

Conclusions

The gunflints recovered from the Castle and Oudepost I provide a unique opportunity to examine the sources for gunflints used by the VOC to provision their outposts in South Africa. They also offer the opportunity to explore the provisioning strategies of the Dutch in South Africa, compared to strategies used by other nations at colonial sites in the New World.

Where origins of the gunflints themselves are concerned, Cape gunflints appear similar to those recovered from sites in the New World. Given the level of mass production seen in France and England, we suggest that either one, or possibly both, of these countries are the source of the gunflints recovered at the South African sites.

Sufficient numbers of spall-type and blade-type gunflints are present to assert that the Dutch were probably trading, either directly or indirectly, with both French and English gunflint manufacturers. The fact that the LA-ICP-MS results from several of the blade-type gunflints from the two VOC sites matched identically the core material from Meusnes, France, strongly suggests that the Dutch were obtaining and distributing gunflints from the primary French supply source. Although all of the honey-colored gunflints subjected to the LA-ICP-MS testing do not display an identical match to the source material in Meusnes, it is a reasonable assumption that most of the blade-type gunflints recovered from the two VOC sites were manufactured in France.

While many of the spall-type gunflints recovered from the South Africa sites show a close match to core materials recovered from Britain, none shows an exact match to this material, making it impossible to say for certain where the spall-type gunflints recovered from the South Africa sites were manufactured. The fact that no spall-type gunflints from either the South Africa sites or the sites used in this study for comparison were manufactured from honey-colored chert matching that from Meusnes suggests that, although the French may have made spall-type flints elsewhere, the spall technique was not used at Meusnes. Given that multiple spall-type production sites are known to have existed in southern England, this may be the source of the Cape series.

Archival lists were examined for evidence of the source of gunflints stored in the Cape armory. Documentary evidence is very sparse, but a 1676 listing of material from the old armory at the Cape does mention two 100 pound kegs, one about three quarters full and the other about two thirds full, of "Fatherland flints," as well as a case, about half full, of "Ceylon flints" (Leibbrandt 1902: 272). It is impossible to say whether this attribution refers to place of production or lading; however, the numbers can be calculated for the Cape armory of 1676. Gunflints were usually dispensed in small casks or "half barrels," the smallest of which contained two thousand gunflints, the largest containing four thousand (Wyatt 1870: 587). Historic documents also tell us that casks of "sorts," or mixed sizes, were also available (Forrest 1983). The 100 pound kegs referred to in the Cape of Good Hope inventory were the larger size barrels containing 4,000 gunflints. Thus we may calculate that there were approximately 3,000 gunflints in the keg recorded as three quarters full and 2,640 in the keg listed as two-thirds full. The size of the case of "Ceylon" flints is not known.

The analysis of Cape gunflints links the VOC station into a web of trade that enmeshed the Old World, the New World, and the VOC realms in Asia. It also offers insight into the provisioning strategies for VOC outposts situated in remote locations.

Acknowledgment

I would like to acknowledge Jay Blaine, an extremely wise, avocational archeologist who made me first question the production locations for 'French' gunflints.

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CHAPTER 12

Implications and Prospects of the Archaeology of the VOC at the Cape

Carmel Schrire

Introduction

The main objective of this book has been to restore a number of key collections from VOC sites at the Cape to full publication, and by doing so, to provide a rich picture of life and times at this distant outpost of an immense seaborne empire. Over the past decade, changing political and intellectual interests have dampened the vigor with which the historical archaeology of the Cape in VOC times was invested and consequently the collections stood a very good chance of being ignored, misplaced, or dispersed, or worse still, being broken, abused, and disseminated through their use as teaching aides. The detailed studies presented here are all backed up by careful conservation and curation of the artifacts and their accompanying written records, including field notes and preliminary analyses. The information is presented as clearly, succinctly and comprehensively as possible in order to provide a solid basis for future work at the Cape and abroad. All that remains now is to contextualize the findings in a local and global context of colonial archaeological research,

The Dutch East India Company settlement intruded into a Stone Age world of hunter-forager-pastoralists. Its primary purpose was to serve as a refreshment station midway between the VOC European homeland and its East Asian entrepôt. Archaeology defines its material signature as a mixture of exotic and local goods made up of food remains, liquor, arms, materiél, kitchen and household goods, ships fittings, building supplies, and clothing. The VOC trade in foreign parts pitted the Dutch against overseas competitors from London to Lombok, but the Cape market was focused on the indigenous Khoekhoen, whose idiosyncratic speech, beliefs, and dress had long titillated the trading nations of Europe. Unlike the Euro-Asiatic markets whose commodities emanated from plantations, mines, forests, and factories, the Cape colonial exchanges were based on access to land, cattle, women, and water. In contrast to the more balanced trade in guns, liquor, and slaves that had evolved in many entrepôts, including those on the West African coast (DeCorse 2001), the Cape trades in stock, copper, liquor, and beads were patently inequitable because exchanges involving cheap European junk, like scrap copper, diluted spirits, and a few puffs of tobacco, pitched the pastoral-forager Khoekhoe economy into an abyss excavated for that very purpose by the inevitable machinations of mercantile capitalism.

It is worth remembering that the Encounter business at the Cape had been going on for 155 years before the VOC flag flapped on the bastion of their earthen fort. It went on long after the portcullis of the new stone Castle was hauled into place, and it continued long after the Dutch East India Company foundered at the end of the 18th century. Indigenous identity, rights, and entitlements never entered into the equation. The basic rules of exchange, whether enacted on board ship, on the beach, or in the courtyard of the Castle, the stockyard of a farmstead, or a wagon on the road, were predicated on Company interests. Prices that might originally have seemed fair to the Khoekhoen—three nails for a sheep, a strip of tobacco and one copper plate for a cow, a bottle of brandy for a woman with white clay stripes under her eyes—were laughable to the foreigners. Once the Europeans settled at the Cape and fenced in their holdings, the rate at which they gobbled up the land was proportional to the increased effort needed to access game, firewood, water, and pasturage. Garbage rotted in the sun. The clear spring that once burbled alongside the earthen walls of the fort became clogged. Flies clotted the abattoir on the once sparkling beach. Actually, the whole place began to look and smell and sound a lot like Home.

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The Archaeology of the VOC at the Cape

One of the biggest contributions of the work described in this book has been the curation of these valuable collections from VOC sites. Losses and misplacements dogged our efforts, making it hard to draw comfort from the assurance that "Nothing actually disappears, it's just a matter of finding it." The Oudepost finds constantly went astray. The beads were deliberately stored in an oversized, prominently marked box that nevertheless disappeared for months when someone set it down in a dark entryway while struggling with a rusty lock at the off-campus UCT deep storage facility. Half of the collection of coarse earthenwares from the Castle Moat vanished three years after Stacey Jordan completed her doctoral degree (2000), and they remained lost for five years until the missing boxes were discovered hidden behind a chest of drawers in the stifling attic of the Department of Archaeology. By then, their markings had long faded and insects had reduced their labels to confetti. In much the same way, the Oudepost faunal collections that were dispatched to the Iziko South African Museum went missing until they were relocated exactly where they had been stacked for almost a decade—in the basement fuming room—unfumed, unaccessioned, and untouched. The less said about a dim, damp Castle storage room located opposite the entrance to the Old Granary, the better. No wonder that, despite repeated home invasions by armed and unarmed persons of ill-will, Jane Klose held tight to her belief that the Asian ceramics stored in her suburban house were safest of all. Today a new set of protocols governs the curation of the collections described in this book, but they have yet to find a permanent home. They reside for now in a warehouse-type facility on the campus of the University of Cape Town, packed in clean, transparent plastic bags in new boxes marked with indelible labels that are affixed with industrial strength, fiber-glass reinforced, transparent tape wound several times around its perimeter. I earnestly hope that they will eventually be transported to the climate controlled reaches of the newly restored Iziko Museums system.

One thing is for sure, despite the long decade it has taken to produce this book, to say nothing of the interval that has elapsed since the excavation of these sites in the mid-1980s and early 1990s, the time lapses have provided an opportunity to review, amend, and expand a number of initial conclusions. This is especially true of Oudepost I, the small outpost located about 120 km north of the main Cape settlement, where Fitchett's (1998) exhaustive and illuminating review of VOC architecture that appeared after a spate of publications (Schrire 1995) could now be usefully integrated into the material of this book. Likewise, the interpretation of Castle finds has only now received the full, critical analysis it deserves.

The Archaeological Collections of the VOC at the Cape

The chief inferences drawn from the material goods excavated in the VOC sites may be summarized as follows.

The analysis of fauna helps to characterize the main function of the sites, with the Castle and Elsenburg sites dominated by domesticated stock and the frontier post at Oudepost revealing a greater emphasis on hunting (see Chapter 3). Stock management and ships' provisioning are patent, and taphonomic analysis confirms that the Castle sites are all secondary fills rather occupational horizons of any sort. This last realization provides an important basis for interpreting the other material residues.

The ceramics from Cape sites are described in Chapters 4 to 7 and include Asian, European, and locally-made wares, whose relative predominance is shown as simply as possible in Table 12.1. Asian wares predominate in all sites, constituting between 47% and 78% of the collections. This is followed by coarse earthenwares (CEW) and, to a lesser extent, European stone wares (EST), with tin-glazed and refined earthenwares contributing minor amounts to the sum. The relatively high proportion of European wares in the Old Granary is noted, though it should not be interpreted as a temporal trend because sherds of patently different ages are evenly distributed throughout its 17th-18th century secondary fills. Similarly high proportions of Asian wares appear at Fort Frederik Hendrik in Mauritius, where assemblages that date to the second period of Dutch occupation (1664-1710) have fewer European wares than are found at the Cape. The Mauritius collections instead feature sizable amounts (13%) of 'Mauritius coarse ware' that possibly emanates from Asia (Floore and Jayasena 2010: 332). On the other hand, Asian porcelain is relatively rare in Katuwana, Sri Lanka, probably due to its distance from the Dutch trade routes, a factor that may, in turn, have spurred local production of Eurasian wares to provision the newly emerging Creole community (Jayasena 2006: 125).

Turning briefly to the salient features of the different ceramic collections, the Asian ceramics described in Chapter 4 were made in China, Japan, Persia, and Southeast Asia but were not necessarily purchased in their places of manufacture (Chapter 4). Instead, the VOC shipped them at various times into storage facilities in places like Batavia (Jakarta, Java) and Deshima (Japan), where they were loaded into commercial trading vessels such as the homebound fleet that brought them to the Cape. Together they fall into four ware and five provenance types, and are catalogued according to a variety of features including origin, decoration, patterns and marks, and dates inferred from shipwrecks, museum and auction catalogs, and archaeological contexts. Major shifts within and between sites, as well as their complex Asian symbolism, combine to fuel the discussion of materiality later in this chapter. The overall impression is that,

Table 12.1. Distribution of ceramic wares in VOC sites (MNV)

Wares	**Site**						**Total**	
	Moat (M90)		**Old Granary (F2)**		**Oudepost I**			
	MNV	**%**	**MNV**	**%**	**MNV**	**%**	**Nos.**	**%**
Asian	1114	78.2	76	46.6	235	65.8	1425	73.3
CEW	206	14.5	43	26.4	65	18.2	314	16.1
EST	74	5.2	23	14.1	43	12.1	140	7.2
TEW	19	1.3	19	11.7	8	2.2	46	2.4
REW	12	0.8	2	1.2	6	1.7	20	1.0
Total	1425	100.0	163	100.0	357	100.0	1945	100.0

apart from a smattering of fine wares that were probably imported through private trade, for the main part, these Cape collections are comprised of mundane, relatively cheap household goods that were requisitioned for the unpretentious Cape outpost. As such, they contrast markedly with the more elite collections of rare and costly wares found in European metropolitan centers like Amsterdam.

The coarse earthenwares include both European and locally made vessels whose everyday household functions include food and beverage storage, and food preparation and service, as well as smoking, heating and lighting. As presented in Chapter 5, Jordan views the Cape-made vessels made by European potters in European forms, as local versions of North American colonoware. Variations between the Castle Moat and the Oudepost I collections are interpreted as showing differences between food provisioning of the large Castle garrison as opposed to self-service at the tiny Oudepost I station. Preparation and consumption of meat dominate the Cape series as opposed the storage and processing of dairy products that characterize such collections found in European sites. Unlike the coarse earthenwares, the European stoneware collections were all imported mainly from Germany, and like the Asian wares, reflect only a small part of the wider Continental range (Chapter 6). Their main components are Rhenish brown, salt glazed jugs, some of which are of the *bartmann* variety. Initially used for the transport and storage of alcoholic drinks, they were re-used again later. Their popularity in these 17th and early 18th century Cape contexts is partly due to a rollicking tavern culture and the absence of a local bottle manufacturing industry there at that time.

Tin-glazed earthenwares also come from Europe and are distributed throughout our sites (see Chapter 7). Their paucity at the Cape, as opposed to their popularity in Dutch colonial sites in America, is likely a function of geography, in that the Cape, unlike eastern North America, was equidistant from Europe and the East, and the VOC found it cheaper and easier to provision it with Asian wares. Chapter 7 also deals with a small series of refined earthenwares that, unlike the tin-glazed wares, were concentrated in the upper levels of the Moat and in the uppermost level of the Old Granary; their low incidence and their location suggest that they did not feature regularly in Cape sites until after the British occupation was re-established there in 1806. The Oudepost I sherd counts speak particularly strongly to post-depositional disturbance, with 43 fragments from a single Jackfield bowl distributed across the site from top to bottom. This particular object received more attention than almost any other ceramic find. It was excavated during the earliest excavations and was identified by a local ceramicist as 'Japanese.' Jim Deetz and Ivor Noël Hume had no doubt about its being Jackfield ware from England, but it took some time for us to understand how fragments of a single bowl, produced after the site was allegedly abandoned, could possibly be distributed from top to bottom of the deposit (Schrire et al. 1993: 27). Its dispersion became the driving force behind our efforts to decipher the taphonomic history of Oudepost through an extensive analysis of clay pipes (Schrire et al. 1990).

The glass found in the Cape sites was imported from Europe and includes a wide variety of bottles and tableware (see Chapter 8). Despite relentless pillaging at Oudepost, sufficient tiny fragments remained to link the collection there with the large, undisturbed series from the Castle Moat. The association of onion/mallet bottles, case bottles, and carboys (demijohns) with a variety of goblets and beakers echoes the predominance of the tavern culture at the Cape. Smaller medicine bottles are similar to those found in sites of this age worldwide. Finally, Chinoiserie engravings on European beakers speak to the global spread of Asian influence in the 17th and 18th centuries.

Objects of personal adornment are described in Chapter 9. They came from the excavations at the Castle Moat and Oudepost I and include mainly buttons and buckles from men's clothing that denote both low ranking soldiers of the Company, with their plain, unadorned uniforms, and a more elite, 'qualified' class, with their finger rings, fancy shoe buckles, and watch chains. Some of these artifacts link up with the metal remains from Oudepost I, which are discussed in part in Chapter 10. Here, the copper, lead, and other metal remains include flatware and book hardware. Analysis reveals a number of processes central to the colonial enterprise, including the use of copper in the stock trade and the use of lead for making bullets. Finally, Chapter 11 presents an analysis of gunflints from the Castle Moat and Oudepost I, where the sourcing of these artifacts using Laser Ablation Inductively-Coupled Plasma Mass Spectrometry (LA- ICP-MS) reveals that the gunflints were imported to the Cape from France and England.

To sum up then, analyses of the collections has led to new realizations, some structural and some global. Where site structure is concerned, our chief realization is that the Castle sites are not primary depositions, but instead, are mainly secondary dumps deposited in convenient ditches such as the wet moat, or in damp enclosed spaces like the Old Granary where they helped raise the floors above the ubiquitous ground water. Further understanding is gained from detailed analyses of residues such as the faunal remains in both the Van der Stel Moat and Oudepost I, where butchery for ships' provisioning is evident in one area, while primary or secondary kitchen residues are patent in another. Equally important is our consideration of intersite variations, where differences between collections from a metropolitan center like the Castle, a working farm like Elsenburg, and a frontier post like Oudepost, are often most plausibly attributable to context rather than to time. On a global scale, analysis of residues dating from the late 17th to the early 18th centuries at Cape sites situates the VOC station there midway between the homeland in the Netherlands and their headquarters in Batavia, Java. Numerous shipwreck cargoes confirm that outbound ships probably deposited the majority of European ceramics, glass, objects of personal adornment, metals, and gunflint, whereas homebound ones delivered the predominant Asian ceramics and possibly copper goods. It is hoped that the detailed studies presented here will encourage comparisons with other sites in the global trade network.

The Underlying Message of the VOC Collections at the Cape

Apart from the fauna, most of the material that we have described was imported to fit the needs of this small but crucially positioned station on the Euro-Asiatic trade route. Much as I do not want to enter into a discourse on subaltern voices, it seems inescapable that the underlying message of most objects has to reflect what the Company thought of the Cape and exactly where it figured in the hierarchy of stations within the Company's trading empire. This is no problem where the big intentional dispatches of Asian ceramics are concerned: for the main part, they were inexpensive wares produced for practical use—bowls, plates, and occasional monogrammed pieces denoting that they came from Company stores. A similar practicality derives from European ceramics, glass, clothing, metal, and gunflints, being as they were mainly utilitarian things that the garrison and settlers needed, or conveniently received from passing ships. There are, however, objects produced at the Cape for immediate local use, for example, here we have strike-a-lights made from local cherts (Chapter 11) and Cape coarse earthenwares that denote Dutch custom and VOC needs. There is an ironic message that deserves mention here and that emanates from a locally made starling pot found in the Castle Moat residues (CEW 57). These were bird feeders, primed with scraps of suet, bits of stale bread, or whatever, and mounted on poles or roofs. Now, recall that most of the Europeans living under VOC rule at the Cape were employed under limited time contracts by a Company who moved them around the trading empire like chess pieces. They were, therefore, what one might call 'birds of passage,' and the starling pot might be construed as an object made by these birds of passage to take advantage of the passage of birds.

Jokes aside, the biggest disappointment of the work reported in this book is the absence of distinct chronological trends in artifact incidence. This might be due to the way in which some of the Castle collections were amalgamated into major groups, thus precluding analysis of successive dumping episodes that might have revealed changes through time. But more important is the realization that the simplest explanation of all—variations in the nature of the sites themselves—supercedes all other explanations for cultural variation. For instance, the Asian ceramics in the Moat sequence show an increase over time of Coarse Porcelain Ware (CPW) over Chinese Export Porcelain (CPO) (Tables 4.1a, 4.1b), but the opposite trend is observed at Oudepost I (Table 4.12b). At first sight this might be thought to signify a difference in the age of the two deposits, were it not for the fact that these are two very different sites. Whereas the trend in the Moat might mirror real changes in VOC trade and provisioning, the small Oudepost was not an intentionally provisioned station and was never intentionally stocked with Asian wares. In other words, trends observed there might more confidently be attributed to random drop-offs from passing ships rather than to deliberate provisioning changes. The same goes for coarse earthenwares, in that the predominance of locally made wares in the Moat reflects its proximity to the kilns that turned out large pots for the large Castle garrison, whereas—once again—the prevalence of small, European wares at Oudepost points to casual drop-offs to the small garrison there. Nor can a clear temporal message be derived from the distribution of tin-glazed earthenwares. Small amounts occur throughout the Castle Moat and the Old Granary but their concentration below the uppermost level at Oudepost I does not signify a temporal increase, in that most sherds emanate from two only vessels. The only hint of a temporal trend in the glass artifacts lies in the distribution of bossed beakers, which are reminiscent of the 16th-17th century European forms that are restricted to the lower three levels of the Moat.

If site variation were to account for so many changes, what is the point of all the detailed analysis and counting in the first place? We have to remember a number of things here: first, all of the collections described in this book come from relatively short term deposits that accumulated over a mere 50-60 years; and second, a great deal of post-depositional disturbance has been documented at Oudepost I, sufficient certainly to confuse some artifact distributions (Schrire et al. 1990, Schrire et al. 1993). Comparisons with dated collections from shipwrecks are invaluable, but even here, a 50-year range might not be sufficiently long to encompass absolute changes in all kinds of artifacts. Although there are the occasional milestones such as Asian ceramics showing the Rotterdam Riots of 1690, most of the patterns do not have such limited production histories, and artifacts like earthenware bowls, Rhenish jugs, buttons, and gunflints actually show long and enduring stylistic conservatism. Unlike prehistoric archaeology, where changes over time are crucial in setting up the parameters of human evolution and cultural change, historical archaeology is free to dwell lovingly on the association of elements that signal different activities like wealth, status, diet, and display. The internal relationships of utensils and other objects, one to another, are vital components in constructing the material world of a settlement. It is what we call 'culture' and it emerges strongly from the taxonomic lists of the VOC sites. In short, I am not dispirited by our failure to point to temporal trends, and feel strongly that the rich descriptions offered here provide a sound basis for future work and interpretation of the material world of the VOC at the Cape and elsewhere in the Euro-Asiatic seaborne empire.

The Art of the VOC Settlement at the Cape

We turn now to something that affords a fresh and new appreciation of archaeology, namely, a rare and possibly unique life drawing of that was made about six years after the Dutch settlement landed at the Cape (see color images in enclosed CD). It is a watercolor of the Fort of Good Hope, printed in the spectacular Atlas of the VOC presence in Africa (Figure 12.1). It comes from the Blaeu-Van der Hum Atlas in the Austrian archives and is inscribed in Latin '*A Beeckman, ad vivium pinxit*' ('A. Beeckman, painted from life'). The details of Andries Beeckman's life are sparse, but his intricately detailed oil painting *The Castle of Batavia, seen from West Kali Besar* (ca. 1656) is legendary (Figure 12.2). He was a VOC employee who apparently fell into debt in Java on January 3, 1657, and planned to sail home on the '*Arnhem*'(www.Rijksmuseum.nl). The Rijksbureau voor Kunsthistorische Documentatie (RKD) listed him as 'Andries Beeckman' from Zutphen who was completing two paintings in 1663. He died and was buried the following year in the Nieuwe

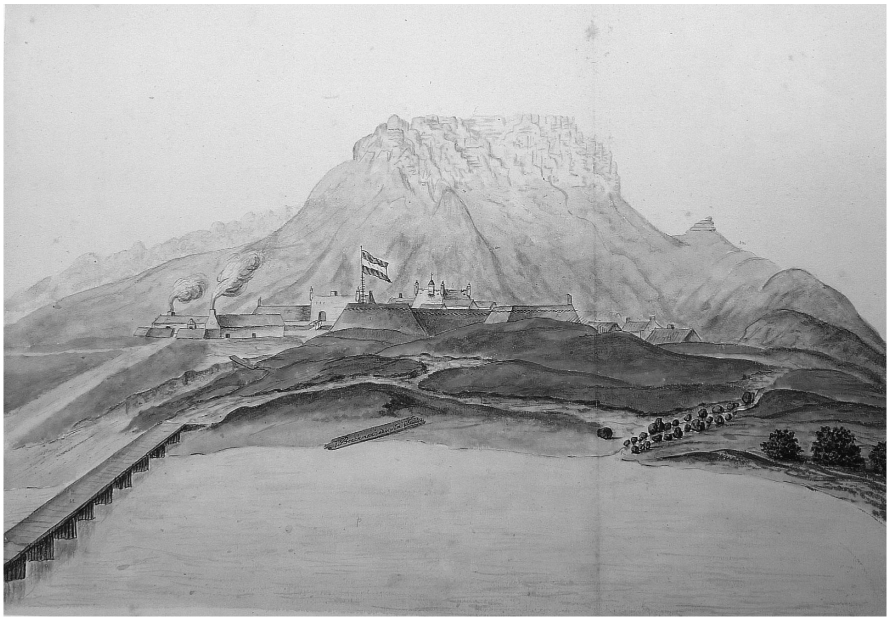

Figure 12.1. View of the fort and Table Mountain. Inscribed "*A Beeckman, ad vivium pinxit*" [1657-1658]. Watercolor on paper, 55 x 45cm. See Brommer et al. 2009: Sheet 77. (Courtesy etc etc… Vienna) (Courtesy Öosterreichische Nationalbibliothek/Austrian National Library, Vienna)

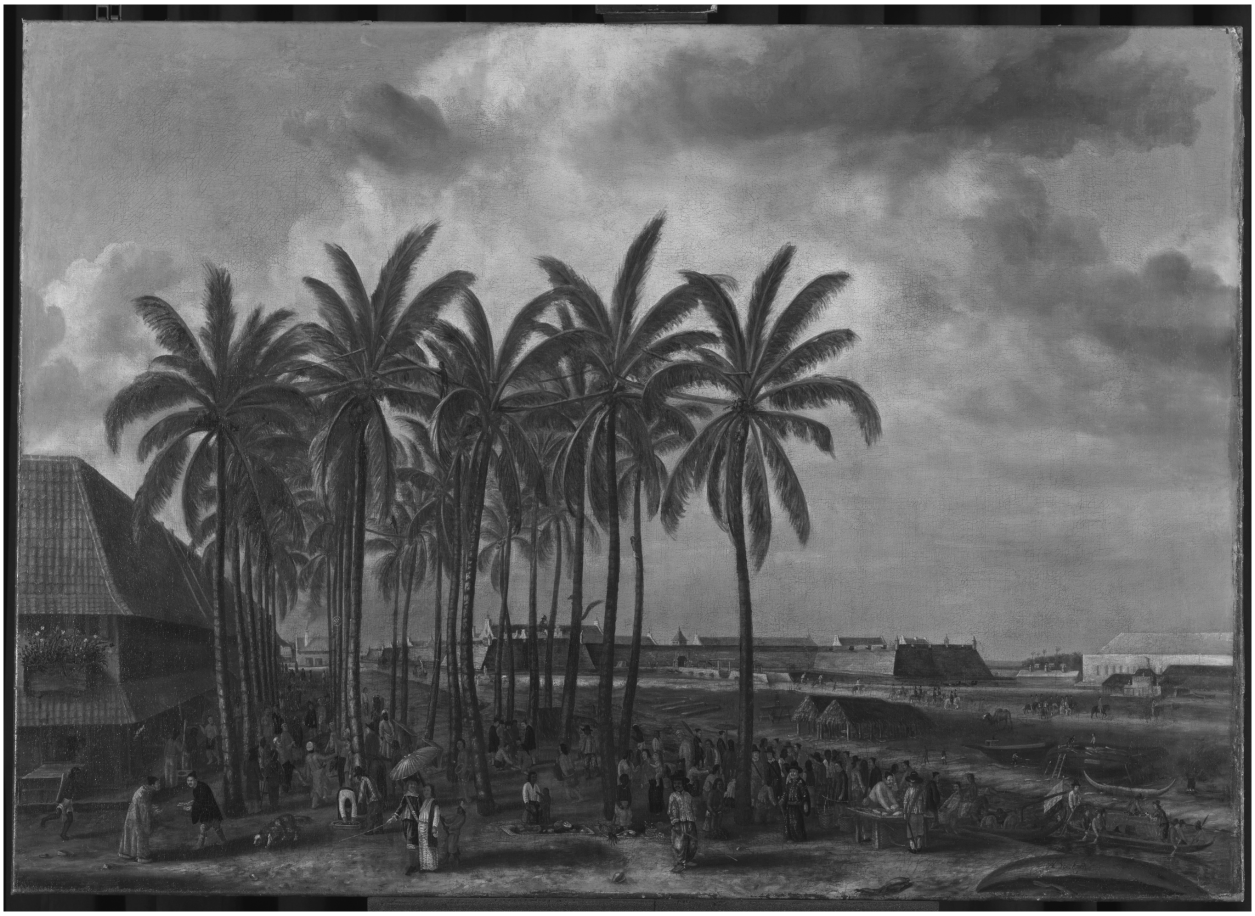

Figure 12.2. Het kasteel van Batavia gezien vanaf de Kali Besar West, "The Castle of Batavia, seen from West Kali Besar." Andries Beeckman, ca. 1656. (Courtesy Rijksmuseum, Amsterdam)

Kerk in Amsterdam.

Beeckman painted his watercolor of the fort at the Cape sometime between December 17, 1657, and February 23, 1658, when the *Arnhem* lay at anchor in Table Bay (Thom 1954: 193, 237). He must have stationed himself with his paints and easel aboard a boat or ship anchored just beyond the jetty, which was still under construction on January 16, 1658 when the Commander walked over its newly laid beams that were waiting to be covered by fresh 4" planks being sawn in the forest (Thom 1954: 215). Beeckman depicts a well-finished jetty, suggesting that if the sketch were made on the boat, it was done some time after the Commander's inspection on January 16 but before his ship left on February 23. The sketch shows the Fort of Good Hope nestled beneath the steep cliffs of Table Mountain and Devil's Peak and cradled on the west by the gentler slopes of Lion's Head and Signal Hill. It sits atop grassy dunes gullied by seasonal streams, one of which is bordered with stones, possibly to prevent sheep and cattle who might wander down for a drink from fouling the water. The fort itself is a squat earthen walled structure surrounding the turreted buildings that housed the Commander, Van Riebeeck, his family, and sundry other officials of the VOC. Small thatched outbuildings bracket the fort: a smithy and kitchen on the left and the gardener's house on the right (Brommer et al. 2009 Pl. 77). Smoke pouring from two chimneys shows that the wind was blowing from the north or northeast, a situation recorded on 14 of the 65 days that the *Arnhem* was in port (Thom 1954: 193-237).

Beeckman's rendition may be compared with later depictions of the fort, including Dapper's inset published in 1668 (Kennedy 1975: D138), Sellars' drawing of 1675 (Worden et al. 1998: 17) and Mallet's view of 1683, shown in Figure 12.3 (see Kennedy 1976: M11). Unlike Beeckman, Dapper shows small watchtowers on the bastions but no turrets on the enclosed buildings. Sellars and Mallet show much the same thing, though (if Beeckman were accurate) most of them depict a taller, more imposing sturdier building than actually existed (Worden et al. 1998: 17). But these are small details of greater interest to the purist than to the archaeologist. What matters for our purposes is the terrain, which shows the taming of an indigenous landscape by European settlers. First, there is a line of rocks placed alongside the stream that brings order to nature and proclaims possession by delineating a stream that must not be fouled by man or beast. Then there is a plank laid over one of the fissures suggesting that the seasonal flow was hazardous enough to justify a bridge. It implies that the later Castle, which stood only a few hundred meters away, was laid down on similarly scoured terrain. Although numerous old maps show that the VOC fort and Castle were ringed by mountain streams (see Figures 2.2 and 2.10; Worden et al. 1998: 18), the depth of gully incision in the Beeckman sketch shows why it took much time and labor to level the ground. The builders of the fort and the Castle had to fill, refill, and consolidate the gullies, and do the same to the walls, bastions, and floors of the buildings. In other words, Beeckman's sketch shows more than a pretty old fort in a picturesque valley by implying that water and flooding was a constant issue in the construction and upkeep of these VOC defensive works. More specifically, it shows why the earthen walls of the fort kept collapsing when it rained and why there are meters of secondary fill under the present floors of the Old Granary, Donkergat, and numerous other rooms in the Castle. It shows at the glance why infill, not *in situ* residues, are the rule rather than the exception, in the interpretation of archaeological deposits along the beach at Table Bay.

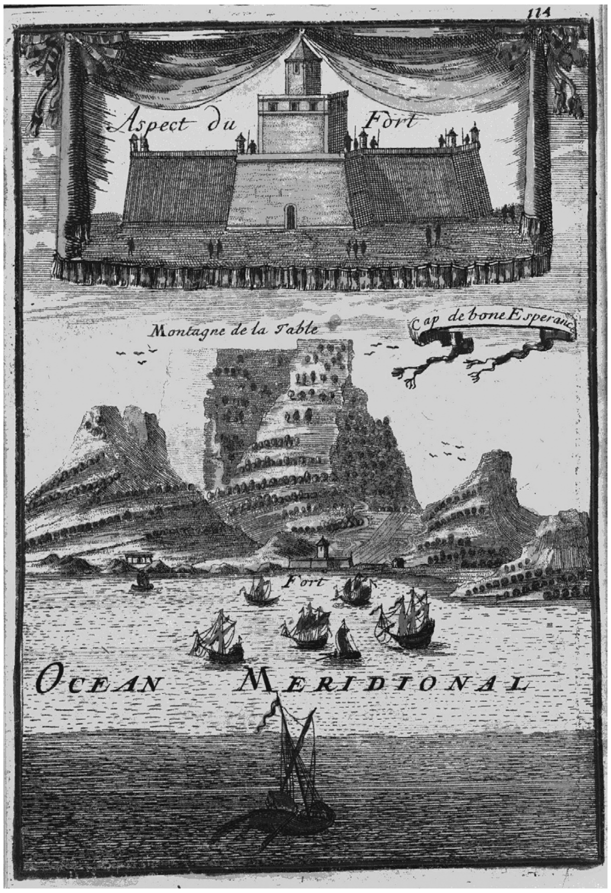

Figure 12.3. View of the Fort at the Cape of Good Hope in Mallet, Allain Mannesson, 'Cap de bone Esperance', 1683. See Kennedy 1976: M11. (C. Schrire coll.)

The Context of the VOC Collections at the Cape

To say that the archaeological context of the Castle sites is key to their interpretation is not as simple as it might sound, because it is often difficult to figure out associations in sites that have been repeatedly reconstructed and consolidated over time. One of the most vexed controversies around today is being played out for high stakes in the City of David, Jerusalem. Here, recent claims have been made of the discovery of buildings associated with the Judean King David (Mazar 2006). This proposition has been painstaking refuted, not simply because site identity should not be asserted by using the Bible as a road map, but through the vigorous application of the rules and principles of archaeological site formation. The point here is less whether the excavators can read the Bible, but more whether they can read the archaeological message of Iron Age sherds. The current refutation slashes through the case for the palace of David like the sword of an avenging angel, by recognizing what was purported to be key stratigraphic units as secondary fills (Finkelstein et al. 2007). The passion brought to our reinterpretation of sites at the Castle of Good Hope cannot compete with that mustered in the Holy Land, but nevertheless, our findings demolish a key proposition, namely, that some of them contain primary residues of slaves. In doing so, we challenge the interpretations that have been persisted over the past 25 years, during which the deposits in the Old Granary (F2) have persistently been posited as slave residues that signified resistance to authority at the Cape (Hall 1988: 5; Hall 1992: 389-390, Hall in Lucas 2006: 62-63; Hall 2008: 129-300). Our new interpretation based on processes of site formation, stratigraphy, and taphonomy suggests instead that the Old Granary deposit is, basically, a secondary dump emanating from elsewhere in the Castle and not attributable to any particular group sequestered within its walls.

This conclusion raises the question of how anyone working on the Old Granary site ever thought otherwise. The chief protagonist of the slave interpretation was Martin Hall, a renowned academic with a major corpus of archaeological research under his belt. His career was built on Iron

Age studies, colonial archaeology and, perhaps most important, on his advocacy of understanding the forces that shape interpretations of the past. So persuasive were his arguments that the editor of *American Antiquity,* prefacing his early paper on the archaeology of southern African farming communities, urged readers beyond Africa to "…think hard about the nature of our interpretations [and] …especially hard about the relationship they bear to dominant ideologies" (Hall 1984: 455). It is consequently hugely ironic that Hall, as a leader in the field of critical analysis of archaeology, should have fallen so neatly into a pit of his own making at the Old Granary. The site was excavated in 1988 at a crucial moment in the dominant apartheid ideology of South Africa when its absurd and unworkable brutality was on the verge of radical change. The watchword was secrecy. There was talk of blood. Rumors of violence sprang up and burning tires sent oily plumes high into the sky over the impoverished townships. And then, apparently suddenly, power was handed over to a new government under the leadership of the most famous former prisoner of all time. Where our little field was concerned, the history of the underclass had been explored for some time, but with the accession of the African National Congress to the government of the New South Africa, interest blossomed in the archaeological expression of indigenous and slave resistance in colonial South Africa. In truth, it went far beyond mere academic concern; it was a passion that gripped researchers in many related fields, who were not only free but also anxious to explore the nature of oppression and freedom (Ward and Worden 1998: 212-217). I know this only too well, having crafted one of my earliest Oudepost papers around the archaeological expression of indigenous dispossession by early European settlers (Schrire 1988).

The Old Granary finds were trawled into the net of archaeological interpretation that sought to ally archaeology with the new wave of political change. The grubby notebooks of the student excavators speak of a slave presence from the very start. The archaeological findings at the Castle quickly spread to a wider audience. They were memorialized in the Castle itself by an installation called 'Scurvy' (1992) (http://www.brettmurray.co.za/work/scurvy/) that drew its inspiration from the discovery of Dutch ceramics in the Van der Stel Moat. An immense blue and white jug was set afloat in the newly reconstructed moat running alongside Leerdam bastion to symbolize the resistance of slaves who threw their masters' treasures away. Later, Sue Williamson's *Messages from the Moat* (1994-95) (http://www.culturebase.net/artist.php?1215) gave voice to newly liberated people by treating colonial treasures with contempt. It placed mutilated images of Dutch portraits into bottles and slung them into a hammock suspended above an old drain (see Schrire 2007: 119). This patent demonization of the old colonial regime galvanized external praise for South African historical archaeology and helped pluck it out of its pariah status conferred by the World Archaeological Congress (WAC) in 1986 (Ucko 1987). All was forgiven and South African archaeology was welcomed back into the fold by being allowed to host WAC 4 in Cape Town in 1999. There, in the lofty neo-classical Jameson Hall, with pigeons swooping beneath its dome, ANC minister Kadar Asmal thanked WAC President Peter Ucko for his help in bringing the former oppressors to their knees and Martin Hall was elected amidst loud acclaim to succeed Ucko as the President of the WAC.

But returning if we may to the Old Granary, if its residues are unattributable dumps, are there any deposits that can be attributed to slaves? This is hardly an unreasonable expectation given that the VOC Cape was a slave society from practically Day One, and to such an extent that when it was first ceded to the British in 1795, slaves outnumbered freemen (Armstrong 1982: 75). The archaeological signature of slavery is a major sub-field in historical archaeology, with its very own dedicated journal, *Journal of African Diaspora Archaeology and Heritage.* Yet the archaeology of Cape slaves remains elusive. True, the excavation of a dedicated slave lodge at Vergelegen yielded a burial of an apparently imported slave, but at the same time, it revealed little about her life or that of the many others who lived and labored there (Markell 1993; Markell et al. 1995). With the exception of Elizabeth Jordan's work on washerwomen—some of whom might have been slaves (Jordan 2005a, Jordan and Schrire 2004)—the archaeology of Cape slaves is almost entirely dominated by analyses of underclass burials of patent and probable slaves, a field that focusses on their anatomy, life histories, grave goods, and turbulent modern political context (Cox et al. 2001; Finnegan 2006, Finnegan et al. 2011; Sealy et al. 1995; Sealy et al. 1993; Shepherd 2007).

This book is no exception. It has but a few reference to slaves in the mass of archaeological data presented here. The links between coarse earthenwares and food lead into a discourse on slave cooks from the circum-Indian Ocean lands, who apparently introduced new ingredients from the circum-Indian Ocean lands that helped shape a Creole cuisine at the Cape (Chapter 5). Beyond this, although fish was listed as a major component in the diet of Cape slaves, salted or fresh, it was not a dedicated *slawekos* because it fed a wide range of people, including VOC elite, servants, soldiers and, inevitably, slaves. Fish remains littered the frontier post at Oudepost, where soldiers fished with nets and hooks, but none of the Castle and Elsenburg collections suggest intensive consumption or provisioning by a particular class of people (see Chapter 3). Finally, although the rumor was once rife of a link between slaves and cheap Asian wares, specifically Coarse Porcelain Ware (CPW), nothing in the probates lists or other documents confirms this association (Chapter 4). Instead, cheap Asian wares were apparently treated much like fish, as an affordable commodity in a minor outpost of the Company.

The Materiality of the VOC Collections at the Cape

One can hardly devote so much attention to the objects in the VOC sites at the Cape without a discourse on their meaning. "Materiality," says Lynn Meskell, "[resides] at the core of the new material culture studies" (2005: 1). The artifact has a context that binds it into its *habitus* or life-world by virtue of the ideology and beliefs of the people who made, used, curated, worshipped, venerated, or even fetishized it. The studies in this book establish the material signature of the VOC collections; all of the authors venture beyond empiricism to "reconfigure modernity" (Meskell 2005: 5). Some succeed better than others. The faunal analyses point to the impact of the European stock trade on Khoekhoe identity (Chapter 3). Jordan's presentation of coarse earthenwares (Chapter 5) argues that European potters were brought to the Cape in order to make familiar European vessels that would inject *nostalgia* (in its most literal sense as a longing for home) and better table manners into the enjoyment of food by rough conscripts (Jordan and Schrire 2002: 246). The fact that the food itself was often unfamiliar—being mutton stews prepared by slave cooks—simply underscores the complexity of materiality by introducing the exoticism of slavery into the discourse. Jordan's description of the European stoneware (Chapter 6) echoes my study of glass (Chapter 8) and White's impeccable listing of personal adornments (Chapter 9), in that all of the objects served to remind the consumer—in case it might have slipped his mind, what with the endless labor, vile punishments, strange women, and sullen slaves—that his present home on the beach at the end of Africa was just as good as that distant hovel on the shore of the Zuider Zee.

But whatever the message of the food residues and the European objects, analysis of our dominant Asian wares is singularly unrevealing of Cape symbolic values. People using such wares, especially those slaves who worked in the kitchens, must have understood the value of certain fine objects, if only because their breakage or loss probably drew a passing slap or worse, depending on the value of the piece. But whether such wares were conceived as being synonymous with slavery, now, that is another matter. The essence of Hall's argument (1992: 389-390) was that Asian ceramics found in slave residues imply that the slaves fetishized them and secreted them to denote their resistance to oppression. We will need more than the scatter of sherds in the Old Granary residues to confirm this elegant proposition, but at any event, it can safely be assumed that the symbolic representations that decorate Asian wares were not recognized as such by their owners or users at the Cape. Chinese patterns are many and varied. They often connote a rebus, whose sophisticated wordplay far exceeds the implications of tulips painted on European ceramics. Chapter 4 discusses Asian wares at the Cape in terms of their price, ease of shipment, and availability, but if we add materiality here, the question is, what did these wares mean to the consumers themselves? It is inconceivable that your average VOC cook or soldier spooning rice from a bowl, understood that the chrysanthemum has a Chinese name that is a homonym for 'wait' or 'long time' and denotes both patience and reflection as well as the wish for a long life (Fang 2004: 43). Likewise—while I'm at it—which Cape resident would think that the 'Dog of Fo' pattern found in all three sites is an emblem of valor and energy? Even more absurd, would any of the soldiers posted at Oudepost have appreciated the mid-17th century Chinese bowl showing the 'Eight horses of Mu Wang' (CPO-093) that commemorates the 10th century Zhou Emperor who set off with his charioteer, Cao Fu, and their legendary horses to visit the Western Paradise at the center of the land of immortality and were never seen again (Fang 2004: 98)? In point of fact, it is not known whether the symbolic implications of these designs were appreciated by the artists who painted them, or by the foreign consumers who bought them. But even if a wealthy private trader at the Cape, such as the one who might have owned the little Chinese water dropper shaped like a toad (see Chapter 4), had a clue to their connotations, it is beyond belief that any of the garrison, burghers, servants, or slaves knew or cared about rebuses, flowers, or the Emperor and his horses.

If subaltern voices are hushed in the excavated remains, they nevertheless resound in artistic installations that draw their inspiration from the material objects. 'Scurvy' was mounted at the Castle in 1992, and once the meaning of an immense blue and white jug floating in the Castle Moat was offered up, people apparently felt good to see a symbol of colonial overlords discarded in a fetid ditch (Schrire 2007: 119). Unfortunately this same contempt was extended to archaeologists excavating at the Castle, whose finds included exactly similar remains of colonial rule. Antipathy towards archaeology became very obvious a few years later, when a dispute erupted about the excavation of a nearby underclass cemetery on the old Table Bay beach. The Prestwich Street burial ground excavations in 2003 drew bitter resentment from putative descendants of the Cape slaves buried there (Finnegan et al. 2011), and archaeologists were reviled as exploitative ghouls, doing "archi-violence" to the underclass dead (Shepherd 2007: 21, quoting Sato). The subsequent denial of scholarly access to the human remains is hardly specific to the Cape, but it set an unpleasant precedent for future scholarly enquiry. In retrospect, the human remains might have found more dignity on the shelves and benches of a scientific lab than they have in the Prestwich Memorial that houses the ossuary today. Situated near the cemetery in the midst of several major highways and an unfinished overpass, this resting place turned out to be such a tourist snore that it was recently partially reconfigured by an 'evangelist.' Today, the Truth and Coffee café offers blends like 'Resur-

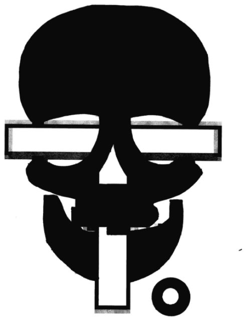

Figure 12.4. Logo for Truth Coffee adapted from http://blog.andreabrennen.com/2010/04/search-for-truth-at-prestwich-street.html. (Courtesy David Donde, Truth Coffee, Cape Town)

rection' and 'Vengeance,' marketed under an icon of a skull pieced with a 'T', for 'Truth' (Figure 12.4; *Mail and Guardian Online*, April 15 2011, http://mg.co.za/article-coffee-gives-the-spirits-a-lift; see also http://blog.andreabrennen.com/2010/04/search-for-truth-at-prestwich-street.html).

> "O death where is thy sting; O grave where is thy victory?" asks *1 Corinthians 15:55*.
>
> Now we have an answer.

The Implications of the VOC Collections at the Cape

The excavated materials described in intricate detail in this book situate the Cape deep in the heart of a European venture to incorporate the Asian trading world of the 17th-18th centuries. They reveal the planning that went into provisioning and maintaining this remote outpost with imports and exports moving from one end to another of the Company's western and eastern runs. The material objects echo the archival sources, but they speak to an endless attention to detail that situates this outpost implacably within the hierarchy of the VOC Euro-Asiatic enterprise. The Company imported a variety of everyday commodities including rice, liquor, ceramics, metals, and arms, and after refurbishing the hulls and decks, they stocked the ships' barrels with fresh meat, vegetables, and water. All these actions are easily able to be inferred from material residues that hammer them home with far greater insistence than even the most detailed requisition lists garnered from the ships' records and lists of contents of the Cape stores.

The essential message of the objects goes beyond particularities like the diameter of pipe stem bores, the designs on Chinese bowls, and the diameters of the bases of heavy-bottomed wine bottles. Their combined messages point to cultural ascendancy and change. Residual heaps of bones, bowls, and bottles speak to the implacable fact that an excited exchange that began long before the settlement of 1652 as a bartering on the beach later solidified into something resembling cultural extinction. The casual swopping of meat for trinkets became a stock trade whose every exchange signaled the intention of the settlers to capture the lives and means of the indigenous people. As Khoekhoe herds fell to exchanges of liquor, bread, copper, and beads, indigenous pastoralists withdrew to the dry North, only to be overrun by equally nomadic colonial *trekboers* who pegged out vast farms in order to graze their newly acquired stock (Heinrich and Schrire 2011; Penn 2005).

"The disappearance of livestock," says one of the Cape's most eminent Cape historians, "must be counted the prime feature of the erosion of traditional [Khoekhoe] society…" (Elphick 1985: 164). True, the VOC purported to pay the bills, but the indigenous pastoralists paid the price. It was a price that might have been avoided given the fact that unlike their native counterparts in America, the indigenous people of southern Africa had already enjoyed a 2000 year-long intimacy with domesticated herds (Harpending and Cochran 2009; Mann 2006). Being endowed with certain immunities from zoonotic diseases, the indigenous clans survived the first contaminated European sneeze, and despite an onslaught of venereal disease, they did not fall in epidemic proportions until what must have been a mutated version of smallpox reached the Cape in 1713 (Elphick 1985: 231-234). This does not mean that Khoehkoe farmers flourished until then; guns, horses, and sheer duplicity tipped the balance almost as soon as the Cape settlement was founded, and the epitaph of the once-vibrant Cape herders was scrawled in the blood of the meat trade (Heinrich and Schrire 2011). Alongside the growth of the stock trade came an anthropogenic transformation of the land. Fifty thousand Khoekhoen might have occupied the southwest Cape when the VOC landed its first settlers at Table Bay, with 4-8,000 living in the immediate vicinity of the Fort (Elphick 1985: 23, 92), but by the mid-18th century around 5000 European settlers (Guelke 1989: 66) had so modified the land that hardly any wild animals let alone Khoekhoen lived within a 120 English mile radius of the Castle (Mentzel 1925: 101, Mentzel 1944: 77,102; Skead 1987: 813-855). At the outer edge of this estimated range, small VOC garrisons stationed at frontier posts like Oudepost gnawed persistently into the land and life of the indigenous people (Cruz-Uribe and Schrire 1991: 93,96; also see Chapter 10).

Archaeological residues track the ascendancy of the Europeans at the Cape in broken ceramics, glass, metals, ornaments, and gunflints. Endless lists and requisitions reveal that the Company figured out everything to the last *doit*. The maritime trade brought Asian and European goods to the Cape and took butchered meat out. The Company imported potters and licensed innkeepers and shopkeepers. Patent as change may be, the wares themselves remain ambivalent on the subject of status and class. It used to be imagined that slaves were the potters at the Cape, but now it seems that may not be the case. It used to be thought that the cheapest Asian ceramics were imported for slaves, but probates and observations afford no confirmation of exclusivity (Chapter 4). Slaves were a mainstay of the economy, but whatever their legal status, their biological and material identities merged with those of the underclass of both free and unfree folk. Masters, servants, and slaves all mingled in the streets, the workplaces, the slatted wooden beds, and the featherbeds of this remote outpost. Wealth may be inferred from some material goods like gold-leafed Asian ceramics, engraved glass, and fancy buttons, but the eventual amalgamation of residues in garbage pits makes it hard to separate rich from poor. Archaeology, like Death, is a Great Equalizer that inexorably conflates the vanity of class and status. And yet it would be absurd to imagine that a mixture of artifacts denotes an equitable distribution of means. We have to muster some imagination here to conjure the gleam of the silver buttons on the coat of a VOC functionary as he struts across the courtyard of the Castle. We need to sense the fishy miasma as a soldier skims the scales off a stew at Oudepost, and we need to listen closely for the grunts as the soldiers and slaves heave the contents of a wobbly wheelbarrow into the fetid slime of the Castle Moat.

The Future of the VOC Archaeology at the Cape

This book lays the foundations for future work on VOC archaeology in the sense of providing exhaustive descriptions and analyses of key collections. While recognizing that the question of where to go from here depends on a multiplicity of factors, including possible expansion of universities, museums, and heritage agencies as well as commercial developments, I would nevertheless like to hazard a few directions for future research.

Let's put it this way: present governmental concerns are not strongly disposed towards reconstructing the full picture of VOC rule at the Cape. Given the unlikelihood of official efforts to excavate such sites, I suggest that instead of addressing the prospect of future archaeological research through direct funding, such research be channeled through the expanding potential of South African tourism. In much the same way as the invention of the 'Cradle of Mankind' outside Pretoria has stimulated interest in human origins, historical archaeology might launch a program of public archaeology under the auspices of the University of Cape Town and the Iziko South African Museum that addresses the rich heritage of the Cape and that markets it to the massive Cape tourist industry.

A historical archaeological unit already operates at Iziko, and related research is currently pursued at the University of Cape Town, both in its academic program and more loosely through its affiliation to the Archaeological Resource Center. It was more vibrant 25 years ago when major excavations were under way at the Castle and Oudepost, and it took a massive hit when Martin Hall moved on to a more central role in University administration. However, given that some 70% of the commercial contracts in archaeology today deal with historical archaeology, there is a crying need to reinstate a program dedicated to teaching and research in historical archaeology. The University needs to hire a professional historical archaeologist to ensure that field research goes beyond the restraints of commercially phased work. Findings need to be integrated over a broad canvas that covers the sweep of the old colonial world to encompass Europe, Mauritius, West Africa, India, the Far East, and America, with Cape researchers taking a leading role rather than mere guides to visitors from those regions.

Funding for such work might be sought from the public lottery, private donors, and the tourists themselves. Where the metropolitan area is concerned, the prime site would be the Castle itself, where a comprehensive survey would be able to seek out suitable sites. One very promising public prospect might be a controlled and detailed extension of the Van der Stel Moat excavation. The presence of rich residues here has already been established, and new excavations would be aimed at establishing a fine-tuned chronological sequence based on the micro-stratigraphic accumulation of successive deposition that would exceed the crude five part series used in our present analyses. The Castle is brilliantly poised for launching into the public gaze through the creation of a major public archaeological program. A dedicated Castle archaeologist might be hired to run a program designed along the lines of public archaeological ventures world-wide. The intellectual impetus would come from an effort to refine the coarse stratigraphy by exemplary retrieval and use of electronic online mapping systems. The area is accessible, it needs no artificial ventilation or lighting, it can be secured day and night, and above all, it is stuffed with stuff. Visitors need not peer into darkened holes; they would be able to watch the process, participate in excavations and experience the thrill of discovery. If programs in rural Virginia like Colonial Williamsburg and Historic Jamestowne (http://apva.org/rediscovery/page.php?page_id=4) can manage to stay in business for decades, surely Cape Town with its massive tourism can launch this venture with a confident eye to the future.

Beyond the metropolitan Cape are the rural sites. The Castle, for all its central locality, is a minor blip on the tourist scene compared to the lure of the wine farms that sprawl at the foot of the jagged folded mountains a short ride away. Air conditioned tourist buses are precisely timed to disgorge oenophiles directly into the path of the dim, atmospheric wine cellars. There, amidst iconic slave bells, towering mountains, and mirrored *vleis*, they sample the products of top professional vinters. Sober or not, they offer a captive audience for on-site archaeological projects elucidating the past of Cape rural communities and industries. Archaeological research on spectacular VOC farms like Vergelegen has not been overly productive, though it did reveal the first recognized burial of an imported slave (Markell et al. 1995). Others, like the Elsenburg farm, have yielded rich material residues and evidence of meat production in the VOC era (see Chapter 3). An extensive regional survey might point to new prospects and rich sites where investigations might lead to programs of systematic research aimed at enriching the present education and entertainment of Cape students and tourists.

Yet another issue stems from the production of information about VOC sites and addresses the difficulty we have had in determining clear typological trends over time. One of the first aims should be to try and infer a firm chronological sequence for the VOC period at the Cape. Such a sequence has been constructed for the late 17th and early 18th century deposits but needs to be extended at both ends of the range by incorporating mid-17th and late 18th century collections. The Golden Acre collection might provide valuable information at the earliest end of the range. It was recovered in central Cape Town between 1974 and 1975, when a major construction project excavated the subterranean space that houses the present, eponymous Mall. The work exposed the ruins of the original Cape settlement on the shore of the bay, just behind Beeckman's jetty, revealing old houses, walls, wells, and dumps in the exposed sections, as well as the brick walled channel that formed part of the original reservoir built by Commandant Wagenaer in 1663 (Avery 1979; Brommer et al. 2009: Pl. 79; Picard 1968: 5). An archaeological salvage operation was conducted by Graham Avery and Michael Wilson of the South African Museum (Abrahams 1985: 43; Avery 1979; also see Chapter 1), and the collections were dispatched, through lack of storage space in Cape Town, to the Stellenbosch Museum. Here they were briefly inspected and labeled and thereafter jealously, if pointlessly, guarded by a former employee. In 2005, Antonia Malan, Jane Klose, and I were permitted a day's inspection that revealed 68 boxes of finds containing a wealth of late 17th and 18th century residues, including some previously unrecorded early Japanese wares. Since then, the collection has been relocated, and it is now available for analysis under the auspices of the Stellenbosch Museum. Although it is impossible to reconstruct the provenances of the various boxes, the collection is nevertheless unique in its age, context, and size and would provide an invaluable adjunct to the residues that from the Castle sites.

Conclusions

These recommendations do not emanate entirely from my intellectual concern with the early settlement at the Cape. They also address a desire to return in part to the glory years when historical archaeology flourished at the University of Cape Town. The slow slide into commercial research might be halted and the research enlivened by a renewed effort to educate the public in the lost heritage of the VOC.

Consider for a moment the average walk-though offered to the groups of tourists who enter through the portcullis of the great Castle gateway today. They weave their way through a dim, intestinal passage where a yawning uniformed official snaps up their entry fee and slides a small map across the counter in exchange (Figure 12.5). Groups of school kids loll around the outer court where a board advises newcomers when the next tour will begin. Under the iron pillared portico is a café, and there is also the option to trip over the uneven cobbles and pitch headlong into the dark tourist shop with its branded T-shirts and caps. Alongside, the Military Museum houses a number of medals, weapons, and window-dressed mannequins wearing uniforms of the past. In the middle stands a reconstructed fort purporting to show the 1673 Khoekhoe attack on the Saldanha Bay outpost that we now call 'Oudepost I' (see See Figure 2.36). Across the way, the mournful depths of the Old Granary house an incomprehensible and moldy pit that was excavated in 1988. Exhibitions are frequently mounted here, including a series of discoveries from the Moat and other sites clumped together in small, illuminated niches in the walls. One coarse earthenware pot from the Moat was recently displayed in 'FIRED,' an exhibition celebrating "the artistry of southern African potters and ceramic artists from the archaeological past to the present" (http://www.iziko.org.za/news/entry/fired-an-exhibition-of-south-african-ceramics). Far beyond the Castle stands Oudepost I. The site is stoutly fenced; public access is extremely difficult because the land is privately owned and gated and stands within the confines of the National Parks. A National Monuments Council plaque is affixed to the wooden gate leading to the lodge, but this is a mistake. The plaque is not merited because someone failed to file the proper papers with the now defunct Council. The Elsenburg farmstead is part of the Agricultural College and is open to view, but there is nothing there to enlighten the rare caller about its past (Hart and Halkett 1993). Other locales, including the famous Van der Stel farms at Groot Constantia and Vergelegen, have small visitors' centers, but to date, neither the Granary nor the Castle, nor any other Museum in the Iziko system, has ever hosted a world-class exhibit of VOC archaeological discoveries that speaks to the use of such finds to infer and illuminate the past.

It is in the hope that this situation might be remedied that we offer the studies in this book to future enthusiasts—amateurs and experts alike—so that the parallels and contrasts they reveal will help build a richer picture of the nature and impact of colonial societies over time.

Figure 12.5. Tourists from the north in the Castle courtyard. (Photo C. Schrire, 2013)

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APPENDIX A

Castle of Good Hope: Archaeological Excavations 1970s-1990

Archaeological excavations were made at the Castle around 1978 to 1992 as part of a massive restoration project under the auspices of the Public Works Department (Johnson Barker 2003: 68-79; Chapter 2, Figure 2.13). The architectural team of Gabriël Fagan Architects contracted a series of Phase 1 and 2 archaeological investigations by H. Vos of the Stellenbosch Museum in 1978, Gabeba Abrahams of the South African Cultural History Museum (now Iziko) in 1982-1983, and Professor Martin Hall of the Archaeology Contracts Office at the University of Cape Town from 1988 to 1992.

Most findings appear in unpublished notes and summaries. In 1978 Hendrik Vos of the Stellenbosch Museum worked in the Oranje bastion. He excavated a well with a trove of leather. He also retrieved some of the finest imported Asian porcelain yet excavated at the Cape, including massive Japanese Arita wares and Chinese *kraak* wares. Some were displayed in the Old Granary (F2), and the rest stored in a separate building belonging to the Stellenbosch Museum.

In 1982, Gabeba Abrahams excavated in G block to reveal the outlines of an early 18th century fish pond that was later transformed, in the late 1780s, into the Dolphin Fountain (Abrahams 1982, 1985: 56-59; Fransen and Cook 1980: 39; Mentzel 1921: 104; see Chapter 2, Figure 2.13). Abrahams also excavated a number of small outbuildings and a cobbled bakery floor (1985: 57-58). Her research was dogged by constant clashes with the architects, and it is to her credit that the material is now safely housed in the Iziko South African Museum, Cape Town.

The most extensive Castle project was done between 1988 and 1992 by the Archaeology Contracts Office at the University of Cape Town, under the field direction of David Halkett and the overall control of Martin Hall (Anon. n. d.). They excavated a series of sites in and around the Castle in Buren bastion, as well as Blocks A-E in the inner curtain, Block F in the Kat wall, a well in the Kat wall, the Van der Stel Moat, and the Ravelin Moat (Chapter 2, Figure 2.13). Most of the finds are stored in the Archaeology Department facility at the University of Cape Town. The fauna are stored at the Iziko South African Museum. A number of boxes containing shell, iron, wood, leather, and fauna remain in an unlit, unventilated store room in Block E at the Castle (Schrire 2002).

The Archaeology Contract Office reports are lodged in the HARG (Historical Archaeology Research Group) section of the Department of Archaeology at the University of Cape Town. They include site reports, preliminary analyses, plans, and photographs. Numerous unpublished summaries exist (e.g., Cox 1993, n.d.; Hall 1988, 1989, 1992a, n.d. a, n.d. b, n.d. c, n.d. d; Schrire and Jeppson 1987; Thackeray 1989; Horwitz and Avery 1989). Unpublished dissertations include analyses of the coarse earthenwares (Jordan 2000a), ceramics (Klose 1997, n.d.), and fauna (Heinrich 2010). Published sources include analyses of earthenwares (Jordan 1994; 2000b; Jordan et al. 1999; Jordan and Schrire 2002), Asian ceramics (Klose 1993, 1997, 2000, 2007), and fauna (Heinrich and Schrire 2011).

Castle: Archaeological Sites

The following locales were excavated mostly between 1989 and 1992 by David Halkett and his team from the UCT Contracts Office under the direction of Professor Martin Hall. The account that follows relies heavily on information gained during a walk-through by Schrire and Halkett in 2002 (Halkett 2002 pers. comm.). Archaeological locales are code named A-G to denote the section of the Castle from which they came (see Fagan 1988; see also Chapter 2, Figure 2.13).

Castle Moat

Ravelin Moat: Test pits were excavated opposite the main gateway and yielded material consistent with VOC occupation of the Castle.

Darling Street Moat (DSM): Test pits were excavated in 1987 in the moat south of the entryway, running along its course to Leerdam bastion, and later more were opened up along the stretch parallel to the mountain, running between Leerdam and Oranje bastions (Schrire & Jeppson 1987; Hall 1989; Hall et al.1990). They exposed the old VOC moat now filled with 18th to 19th century British occupational debris. The similarities between the excavated moat walls and the standing Castle walls suggest that both were built as a single—if extended—operation around the late 17th and early 18th century. The moat had clearly been cleaned out since it was originally constructed. It was a clay-lined stone moat made up of an *onderwal* of Malmesbury shale, with both the *escarptalude* and *contrescarptalude* lined with shale and resting on large rocks of local sandstone (Hall 1989:10). The structure did not conform with official recommendations and instructions, having been downsized to almost one quarter of its intended size. A deep *cunette*, specified in 1679, was clearly never built and the moat itself was never dug deep enough to encircle the Castle with water.

Van der Stel Moat (M90 and Mt 90): A series of test pits and a major trench were excavated northeast of the main gateway (see the preceding section). This is the richest archaeological collection from the VOC period at the Cape.

Buren Bastion

Excavation of fill inside the bastion exposed a powder magazine with a vaulted chamber and brick floor that was completed in 1673. A series of drains was exposed.

Block A

Miscellaneous test excavations were made in the drains here.

Block B

Well: Excavation of the contents of a well in Block B was made in the 1970s by H. Vos, Stellenbosch Museum.

Drains: In 1991 excavations revealed five wells or cisterns related to drainage works by the early 18th century engineer Louis Thibault (Halkett 2002, pers. comm; Chapter 2, Figure 2.13).

Block C

Excavations by H. Vos of the Stellenbosch Museum were made here in the late 1970s.

Block D

'Donkergat' (lit. 'dark hole') is coded 'DKG'. It was a small 4m x 8m room at the base of the curtain wall of the Nassau bastion (Chapter 2, Figure 2.13). Originally it was a high vaulted chamber with two external air vents and was outfitted as a torture chamber in 1698 (Hall n.d. a: 6). As such, it resembled the so-called torture chamber opposite the entrance to the Old Granary (F2) that is currently called Donkergat (Halkett 2002, pers. comm; Chapter 2, Figure 2.13). It was excavated from July 7 to August 2, 1988, after contractors trenched down 40cm to reveal an archaeological deposit (Halkett 1988c: 1). The excavation was done in 2 m squares and revealed a series of fills containing building rubble, artifacts, and abundant bones. The foundations of a dividing wall were found, and different sequences appeared in each room (Halkett 1988c: 8-9). Heinrich analyzed finds from one unit where the stratigraphic sequence lying beneath a concrete floor ran as follows (2010: 130-131).

Layer 1: Brown clayey fill disturbed in part by rodent burrows.

Layer 2: Looser fill, likewise disturbed by burrows.

Layer 3: Rubble, bricks, mortar, and stone fragments with *in situ* cobble and brick floor at the base that might have once extended over the entire room.

Layer 4: Dark grey charcoal secondary fill with bones deposited at various angles. Small pits extending into the subsoil.

Clearly the levels of floors were raised by dumping garbage, some of which emanated from a Castle kitchen. The excavated deposit was disturbed by rodent nests and numerous pits and post holes (Halkett 1988c: 46), some of which might have housed scaffolding erected to help construct the vaulted roof (Halkett, 2002, pers. comm.). The associated British ceramics date to the late 18th century (Klose 2005, pers. comm.).

Block E

Watergate: Excavation of the original gateway lying midway between Buren and Catzenellenbogen bastions revealed a compacted gravel pathway with visible wheel tracks (Chapter 2, Figure 2.13). Numerous flint chips were found here that might represent skinflinting, or gunflint sharpening, by sentries (Halkett 2002, pers. comm.).

Block F

An old ablution block here was demolished to reveal the foundation of an old guard house or officer's quarters.

Secunde's House and kitchen (F1): Constructions from the 17th to 19th centuries were demolished leaving an open area dissected by trenches and walls (Hall n.d. b: 3). The team excavated the foundations of the guard's house or officer's quarters located on the northwest side of the Kat wall facing the main entryway (Halkett 1988b).

Old Granary (F2): This was the floor of a standing 17th century vaulted chamber located opposite F1, on the southeast side of the Kat wall (Halkett 1988a; Hall 1988, n.d. b, 1992a; Halkett 1992b: 389-390; see also Chapter 2, Figures 2.13, 2.32). The sequence runs from top to bottom, as follows.

Phase Seven: Final period of fill containing 10 or 13 units (Hall n.d. b: 8; 1988: 35-36). Occupational debris includes hearths, rubble, pits, a compacted floor, a white mortar floor, and a top floor, all sealed by wooden floor dated c. 1820 (Hall n.d. b: 15)

Phase Six: 6 units. This dates the construction of brick grain bins and consists of a series of walls (Hall 1988: 35).

Phase Five: 5 units. 0.9-0.75 m BS. These occupational units postdate the repairs to the Kat wall and predate the construction of brick grain bins. They are called living surfaces and include pit fills, rubble, a hearth, and hard brown compacted floors (Hall, n.d. b: 7; 1988: 35).

Phase Four: 13 units. Fill from partial re-excavation and repair of Kat wall. The units include brown gritty soil, compact greyish-brown sand and rubble (Hall n.d. b: 7; 1988: 34).

Phase Three: 1.20-0.9 m BS. 27 units. These are the only deposits directly related to the Granary as it stands today. They were deposited after the Kat wall was made in 1691 (Hall n.d. b: 7). They include repeated layers of brown gritty soil, clay, and rubble, as well as ash and charcoal deposits, a soft shell layer, and a layer of shale chips (Hall 1988: 31-33).

Phase Two: 4 units. Date c 1685-91.These are secondary fills from the massive foundation trench cut to house the Kat wall c.1685-91. The fills presumably date around this time.

Phase One: 2.20-1.20 cm BS. 18 units. Date pre-1685-91. These include deposits of gritty brown basal soil, white sand, consolidated brown soil as well as rocks and plaster, all sealed by a yellow clay (Hall n.d. b: 6-7; Hall 1988: 29-31). They were cut into by the foundation trench of the Kat wall, and therefore predate 1685-91. They also predate the construction of the Granary itself, and as such represent accumulated debris in an unknown open or sheltered context. Pre-colonial residues are mingled with colonial ones, suggesting early contact, and charcoal is interpreted as evidence of colonial site clearance and vegetation burning. The plaster and rocks are interpreted as builders' debris (Hall 1992a: 1-2), and the yellow clay is construed as an early surface floor that was laid over the original single Castle courtyard (ibid: 2).
Pre Colonial: 2.75-2.20cm BS. Fine brown layered sands.

Basement (F3)***:*** The basement of a standing building was located adjacent to F1 on the northwest wall of the Kat wall, east of the Kat balcony (Hall n.d. b: 3; Halkett 1989; Chapter 2, Figure 2.13).

Well: This was located in the Kat wall on the west side of the entryway.

Toilet Block (TB): Excavations were made in this open area outside F2 that was sealed by a temporary toilet block (Hall 1991: n.d. b: 3).

Block G

Dolphin Fountain Pool: This was excavated by Graham Avery and Gabeba Abrahams of the South African Museum (Fransen and Cook 1980: 39; Chapter 2, Figure 2.13).

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APPENDIX B

Reconstructing Oudepost I, the VOC Outpost at Saldanha Bay

Patricia Schwindinger

Introduction

Three-dimensional computer modeling is a fast growing field in archaeology that offers the public a readily understood analysis of the overall interpretation of the site. This appendix is a brief description of the creation of a digital model of Oudepost I, a small outpost of the Dutch East India Company (VOC) on the shore of Langebaan lagoon within Saldanha Bay (Schwindinger 2012; see the enclosed CD for color images and video of the 3D reconstruction).

The Military Role of the Oudepost I Fort

The primary purpose of the outpost was to provision ships on their way to the Cape of Good Hope. Oudepost I was a small outpost on Saldanha Bay that was built in 1669 and maintained (with one brief hiatus) for nearly 50 years (Schrire et al 1993). Despite its size, it carefully mirrors many of the features of a full-scale fort, and as such served to proclaim the proprietal Dutch ownership of the bay. In the mid-17th century, VOC control of Asian trade was far from secure. The Dutch Republic was engaged in successive wars with other European powers that often spilled over into colonial territories; after the outbreak of the second Anglo Dutch War in 1665, a new defensive Castle was built at the Cape (Hall et al 1990). Tensions with France were also high and would dissolve into active warfare just three years later, in the Franco-Dutch War (1672-1678) (Black 1994: 87). Economically, the English East India Company and the Compagnie des Indes Orientales (French East India Company), provided stiff competition for Dutch endeavors (Alrich 1996; Chaudhuri 2006). Although history would later prove that the French were at best small-time players in Asia (Aldrich 1996: 16), in 1669 they had numerous colonies in Africa: Gorée, established in 1648 in modern day Senegal; Ile Bourbon, 1655, modern day Reúnion; and Fort Dauphin, 1643, on Madagascar (Aldrich 1996: 15-17). In 1664, two thousand French colonists arrived at the Madagascar colony (Aldrich 1996: 16), making it not much smaller than the contemporary Dutch colony at Cape of Good Hope (Ross 1989: 244). Given this spread, a provisioning station near the Cape would have been of great advantage to the French, allowing them to avoid the inflated prices that the VOC impressed on non-Dutch ships (Ross 1979: 247).

The French intention to establish a station on Saldanha Bay was first brought to the attention of the VOC in 1666, and they sent a small party to guard the bay. Fearing further inroads, they built Oudepost I in 1669 (Raven-Hart 1971: 99). Actual hostilities broke out in 1670, when a French fleet arrived in the bay and seized the outpost, capturing the four soldiers and lowering the Dutch flag to hoist a French one (Leibbrandt 1901: 331; Raven-Hart 1971: 101). Two Dutch ships were sent from the Cape and the French turned tail and left (Leibbrandt 1901: 334-335). But fears of a French invasion lingered, and when in 1673 a second attack by the French seemed imminent, orders were sent from the Cape to burn to the post on the appearance of the enemy (Böeseken 1959: 109-112). In any event, the French did not turn up (Fitchett 1996: 602-603). Although the post might never have withstood a concerted attack, its very presence signified VOC ownership and implied that an attack would evoke concerted opposition from its larger parent settlement at the Cape.

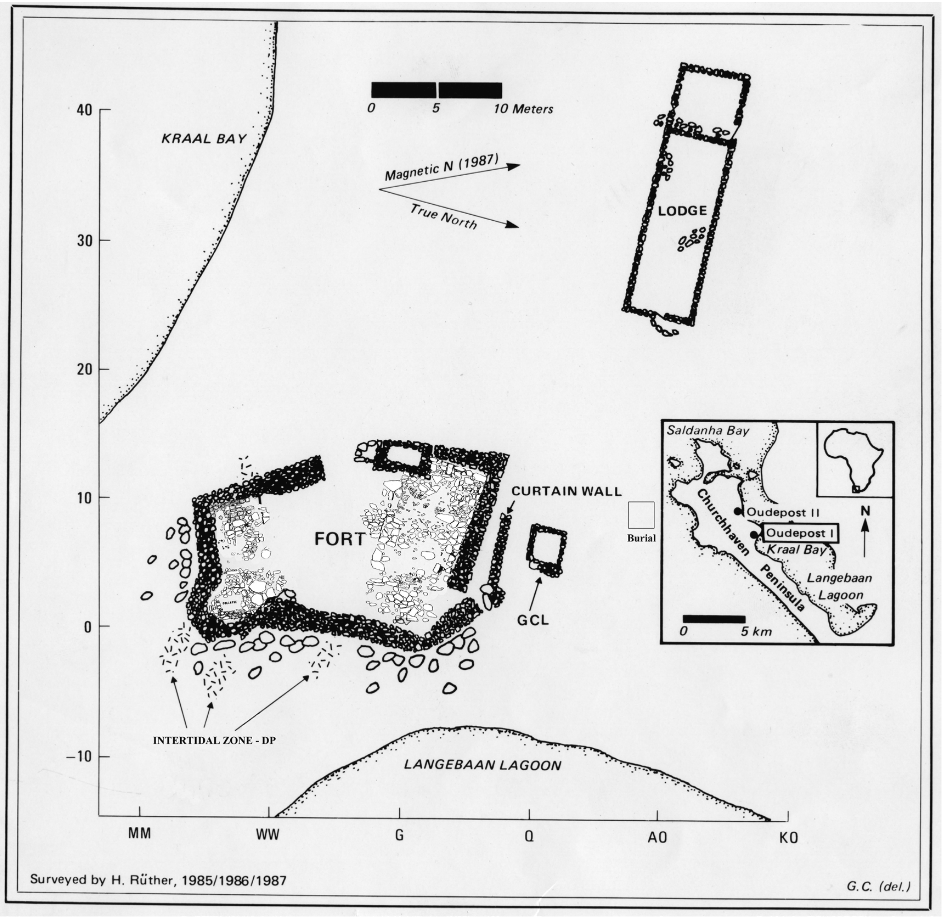

40
30
20
10
0
−10
KRAAL BAY
0
5
10 Meters
Magnetic N (1987)
True North
LODGE
FORT
CURTAIN WALL
Burial
GCL
INTERTIDAL ZONE - DP
LANGEBAAN LAGOON
MM
WW
G
Q
AO
KO
Saldanha Bay
Oudepost II
Oudepost I
Kraal Bay
N
Churchhaven Peninsula
Langebaan Lagoon
0
5 km
Surveyed by H. Rüther, 1985/1986/1987
G.C. (del.)

Figure B1. Plan and location of Oudepost I, Cape. (Schrire et al. 1990: 270)

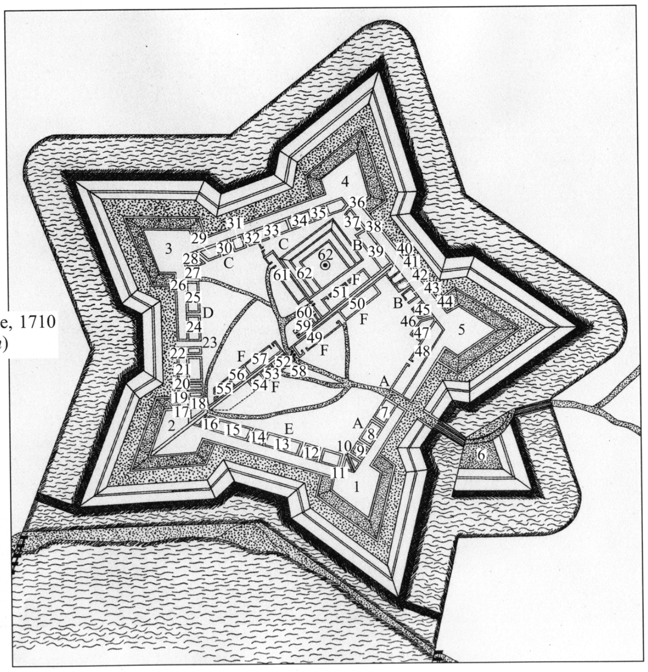
Where indigenous attacks were concerned, its record was less successful. The outpost stood in the heart of Khoekhoe pastoralist territory and they attacked the fort in 1673 during the Second Khoi-Dutch War (Elphick 1985: 127-134; see Chapter 2, Figure 2.36). The gates were probably open at the time, and several of the soldiers stationed there were killed (Leibbrandt 1902: 142-143; Schrire 1995: 96). The entire outpost was abandoned for the next decade (Elphick 1985: 129, 131), and reoccupied only when the need for a provisioning station again outweighed the threat of a native attack. It was never again threatened by a foreign power and was abandoned in 1732 when it was relocated a few km north (Schrire 1995: 96).

Reconstructing Oudepost I

The model itself was made in Sketchup 8, a computer program available without cost from Google. Although Sketchup models lack some of the artistic finesse of models made in more professional modeling programs, its availability without cost and relatively short learning curve made it useful for this reconstruction. There are three main structures at Oudepost I: a fort, a lodge, and an unidentified enclosure simply called 'GCL' after the excavation schemata (Schrire et al. 1990: 273, Figure B1). The map, field drawings, and photographs of the site were central to this work.

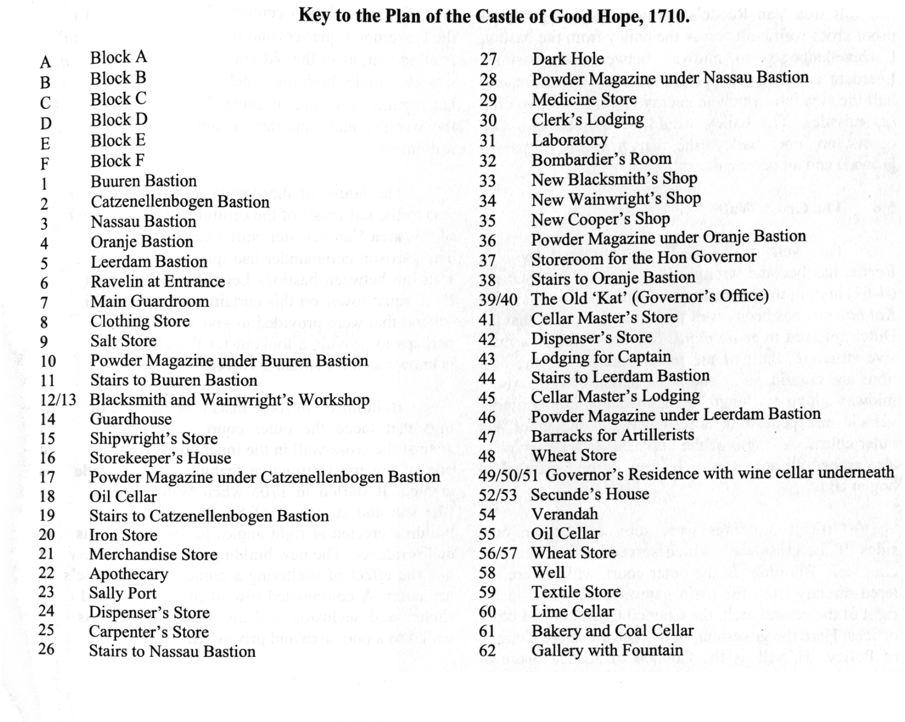
The Fort

The fort at Oudepost I hardly adheres to the stringent requirements dictated by the contemporary science of fortification, of which the pentagonal Castle of Good Hope is a classic example (Figure B2; see Brice 1990: 96-99). It stands directly on the on the sand or bedrock without footings of any kind (Schrire et al. 1993: 22). Its walls vary in thickness from 1.4 to 2 m, and what remains of them stands at most 1 m tall (Schrire et al. 1990: 274). The walls show no evidence of tapering towards the top (Schrire 2012, pers. comm.) as they would have in a more formally built fort (Barker 2003: 17). There is no evidence of a moat, although its placement on the rocky beach ensures that it is guarded on one side by high seas (Figure B1). A single small, circular enclosure NA juts out towards the bay (Figure B3). The main entrance on the landward side was protected by an enclosure AY that might have been a gatehouse. The side entrance closest to the lodge is shielded from the sea by a rough curtain wall (Figure B3). Although the construction is rough, it clearly mimics the features of larger forts, with its irregular outline being almost identical in shape to the larger VOC fort at Rio de la Goa fort (later Fort Lijdzaamheid), built in Mozambique in the early 18th century (Bougaerde 2008: 195; Figures B4, B5). In addition, its placement on the beach, its thick walls, the enclosure guarding the seaward side, and the possible curtain wall that shields the side gate all indicate that it was built by someone who had an idea of what a fort ought to look like, and deliberately replicated those features on a smaller scale.



The Castle of Good Hope, 1710
(M1/1103; CA) (*Redrawn*)

Figure B2. "The Castle of Good Hope, 1710" (Johnson Barker 2003: 36-37). Redrawn from Western Cape Archives and Records Service: M1/1103 which is shown in Brommer et al. 2009: Sheet 80 below. (Courtesy I. Greeff, Curator, Castle Military Museum, Cape Town)



Key to the Plan of the Castle of Good Hope, 1710.

A	Block A	27	Dark Hole
B	Block B	28	Powder Magazine under Nassau Bastion
C	Block C	29	Medicine Store
D	Block D	30	Clerk's Lodging
E	Block E	31	Laboratory
F	Block F	32	Bombardier's Room
1	Buuren Bastion	33	New Blacksmith's Shop
2	Catzenellenbogen Bastion	34	New Wainwright's Shop
3	Nassau Bastion	35	New Cooper's Shop
4	Oranje Bastion	36	Powder Magazine under Oranje Bastion
5	Leerdam Bastion	37	Storeroom for the Hon Governor
6	Ravelin at Entrance	38	Stairs to Oranje Bastion
7	Main Guardroom	39/40	The Old 'Kat' (Governor's Office)
8	Clothing Store	41	Cellar Master's Store
9	Salt Store	42	Dispenser's Store
10	Powder Magazine under Buuren Bastion	43	Lodging for Captain
11	Stairs to Buuren Bastion	44	Stairs to Leerdam Bastion
12/13	Blacksmith and Wainwright's Workshop	45	Cellar Master's Lodging
14	Guardhouse	46	Powder Magazine under Leerdam Bastion
15	Shipwright's Store	47	Barracks for Artillerists
16	Storekeeper's House	48	Wheat Store
17	Powder Magazine under Catzenellenbogen Bastion	49/50/51	Governor's Residence with wine cellar underneath
18	Oil Cellar	52/53	Secunde's House
19	Stairs to Catzenellenbogen Bastion	54	Verandah
20	Iron Store	55	Oil Cellar
21	Merchandise Store	56/57	Wheat Store
22	Apothecary	58	Well
23	Sally Port	59	Textile Store
24	Dispenser's Store	60	Lime Cellar
25	Carpenter's Store	61	Bakery and Coal Cellar
26	Stairs to Nassau Bastion	62	Gallery with Fountain

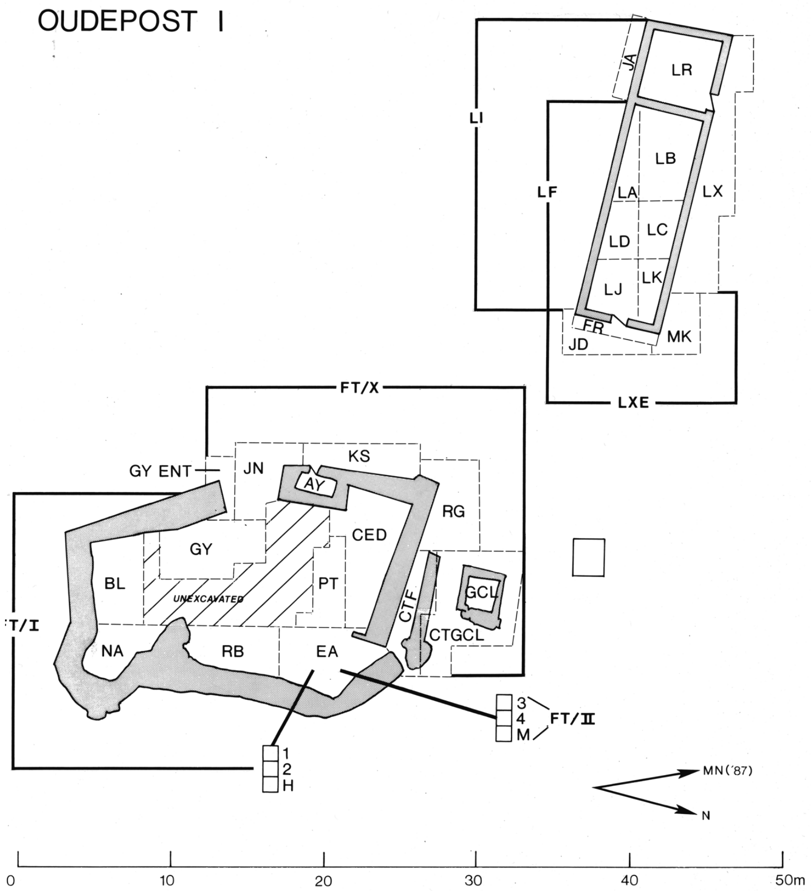

OUDEPOST I
LI
JA
LR
LF
LA
LB
LX
LD
LC
LJ
LK
FR
JD
MK
LXE
FT/X
GY ENT
JN
AY
KS
RG
CED
GY
BL
UNEXCAVATED
PT
CTF
GCL
CTGCL
FT/I
NA
RB
EA
3
4
M
FT/II
1
2
H
MN('87)
N
0
10
20
30
40
50m

Figure B3. Plan of Oudepost I, Cape, showing excavated units and groupings. (Schrire et al. 1990: 273)

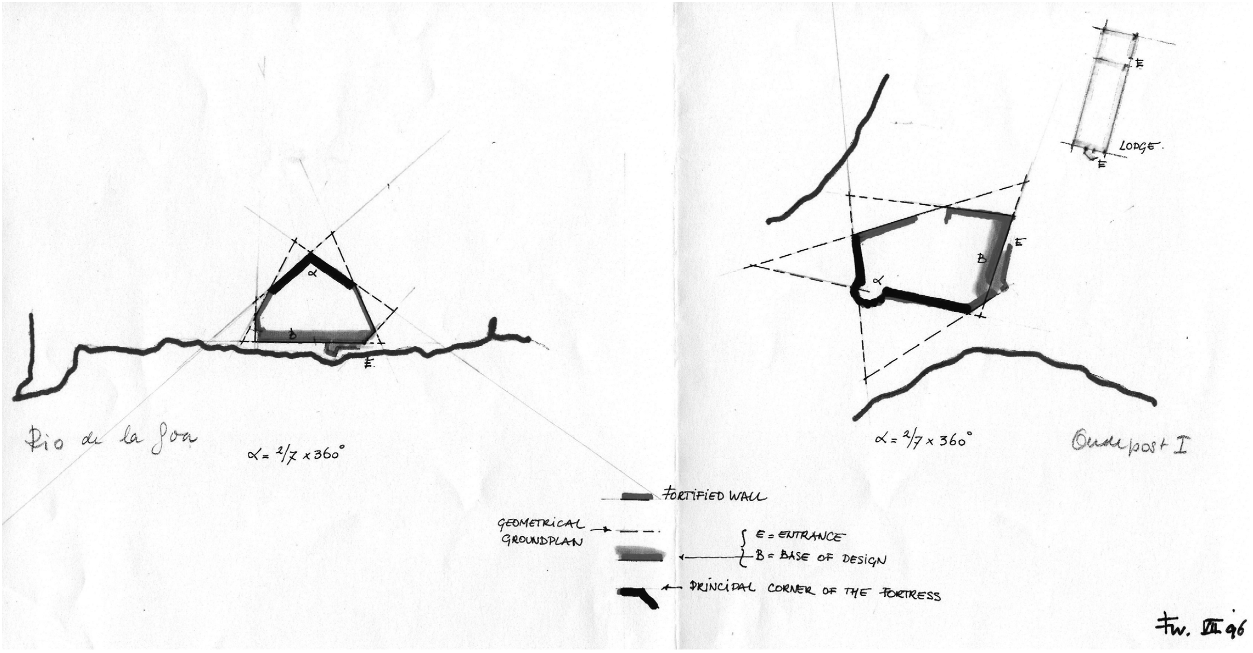

E
LODGE.
E
E
B
α
α
b
E.
Rio de la Goa
α = 2/7 x 360°
α = 2/7 x 360°
Oudepost I
FORTIFIED WALL
GEOMETRICAL GROUNDPLAN
E = ENTRANCE
B = BASE OF DESIGN
PRINCIPAL CORNER OF THE FORTRESS
Fw. VII 96

Figure B4. Sketch of VOC outposts at Oudepost I and Rio de la Goa, showing similarities in shapes and lines of fire. (Frans Westra 1996, pers. comm.)

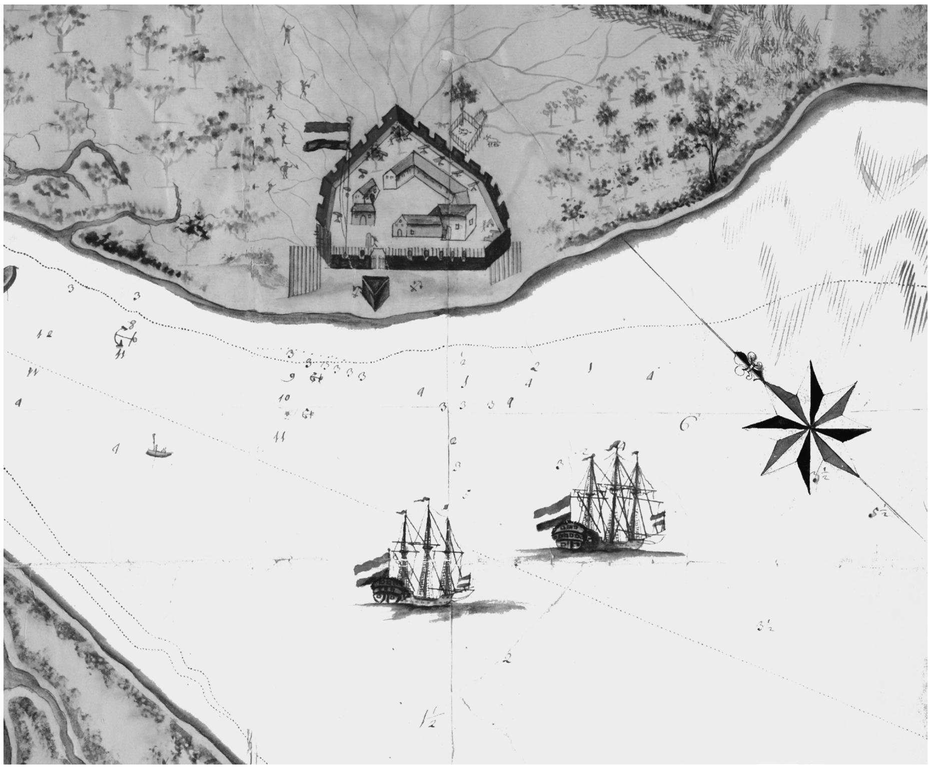


Figure B5. A cropped section of the Company's Post, Rio de la Goa, 1721. Nationaal Archief, 4. VEL 205 (Jacob de Bucquoij, attributed, 1721). See also Brommer et al. 2009: Sheet 357 below; Godée-Molsbergen & Visscher 1913: 47. (Courtesy Nationaal Archief, Den Haag)

The first question in reconstructing the fort was how high its walls might have stood. Ideally it might have been possible to calculate height based on the quantity of fallen stones present around the walls, but this proved impossible because several modern homes standing on the edge of the site have stone foundations that were probably built from rocks that fell or were collected from the walls (Schrire et al. 1993: 25). Certain standing sections of wall stood 0.8-1.0 m tall (Schrire et a. 1993: 25), but this seemed improbably low even for a purely symbolic structure. Sébastien le Prestre de Vauban (1633-1707), recognized at the time as the leading engineer of fortifications, dictated that the thickness of walls should be one third of their height (Duffy 1996: 49, 56). The walls at Oudepost were 1.4-2 m thick, so theoretically one might conclude they could have stood 6 m tall. Such height would require a rampart for its defenders, yet no evidence of such a feature was found. A final height of 2 m was chosen for the reconstruction, based on the 2-3 m that the defending wall typically stood around a rampart (Duffy 1996: 62). The model was textured with a repeated image created from a photograph of the highest standing wall. Although lumps of plaster as well as small patches between the stones were recovered, suggesting that plaster was used in construction, the amounts seemed insufficient to justify plastering the entire fort in the reconstruction (Schrire 2012, pers. comm.).

Gates and gatehouses of Dutch forts varied widely. The door presented in this reconstruction is based loosely on a contemporary painting by De Jong (1982) of a walled VOC plantation at False Bay, Cape. The rectangular structure AY that stands next to it was originally filled with loose rubble and, having no entryway, was interpreted as a watchtower or platform (Figure B3).

Within the fort were two separate areas of paved flooring suggesting the presence of small, single room structures (Figures B1, B6). Their perimeters are set against standing walls on two sides and bounded by carefully laid paving on the opposite side (Schrire et al. 1993: 22, 23). The roofs would certainly have been thatched (ibid. 1993: 24). There is no surviving evidence of walls or posts inside these structures, though post-depositional disruption by dune moles may have removed such evidence (Schrire et al. 1990: 276; Schrire et al. 1993: 25). The alignment of paving in CED and BL reveals where the margins, if not the walls, of the enclosures stood. The use of these structures is not clear, though charcoal scattered throughout the fort and a hearth in area EA suggest that fires were made within its walls. Two interpretations of these structures are possible: either they were buildings with partial wooden walls or they were open-air structures with thatched roofs supported by wooden posts such as are commonly found in colonial forts in hot climates (Noble 2007:

144-145). The latter interpretation was chosen and their final appearance was modeled after an image of Fort on St. John's Hill, an outpost of the fort at Malacca built by the Dutch in 1640 (Irwin 1962).

Regarding the circular enclosure NA, which faces the sea, three possible interpretations initially came to mind—a raised watch platform, a roofed structure and a low turret. The first is unlikely given that the floor was paved and sloped downwards towards the sea. The existence of a roof was suggested by the recovery of several pieces of plaster within this unit, including one with an impression of a pole and several with reed impressions indicative of thatching (Schrire 1988: 220), though the plaster might just as easily have come from a roof built over the adjacent paved area BL. The final interpretation as an open-air turret was based on evidence that a cannon and several cannon balls were removed by collectors prior to the excavations and that several more were recovered in this area during excavations (Schrire 1988: 222; Schrire 1990: 16). It seems unlikely that a cannon placed in the NA enclosure could ever have functioned, because its floor slopes too steeply to accommodate the rebound (Ivor Noël Hume 1988, pers. comm.). However, there was no other place in the fort that the cannon might reasonably have been located, so one was placed there in the reconstruction, even if it were purely for show.

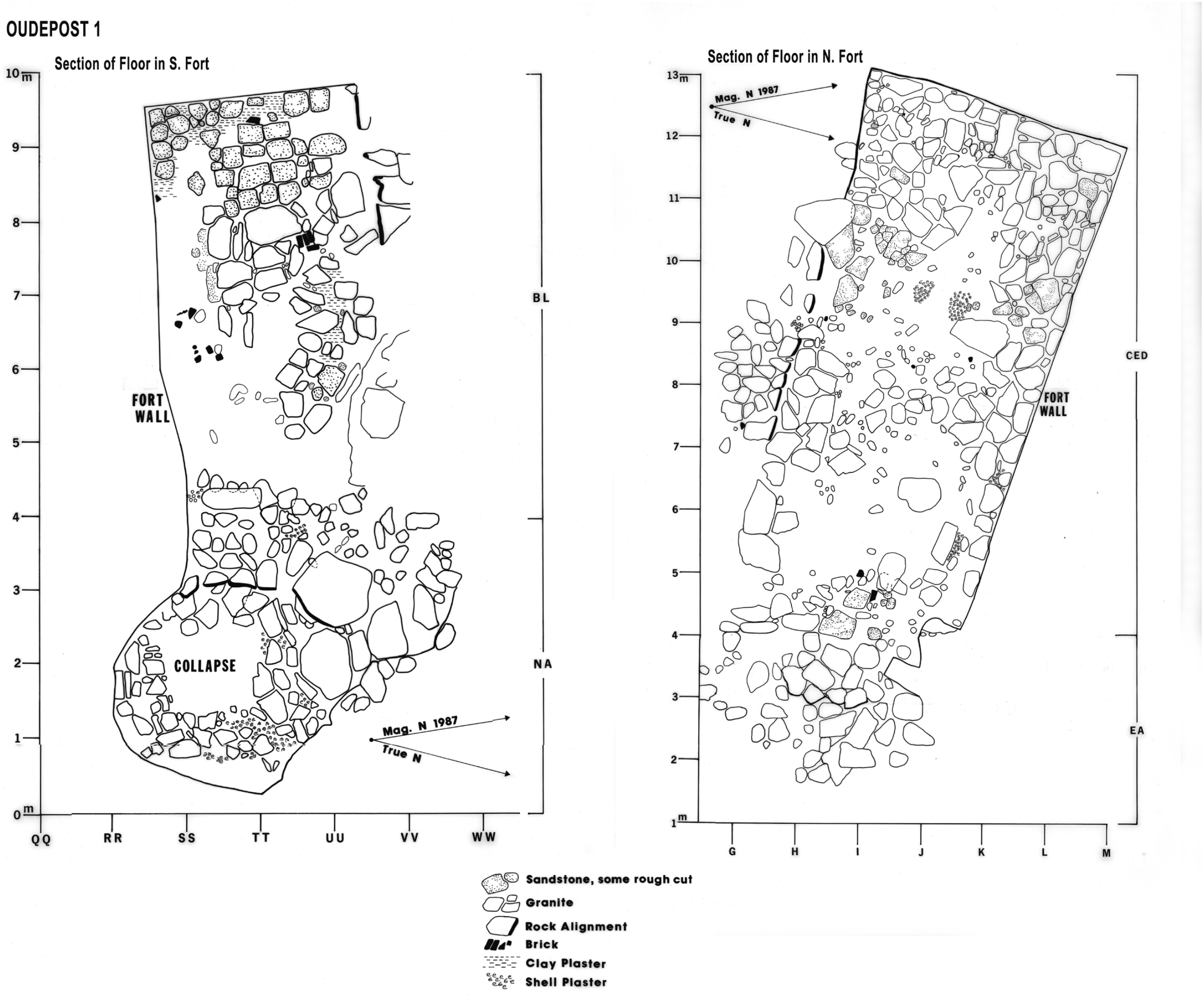

OUDEPOST 1
Section of Floor in S. Fort
10 m
9
8
7
6
5
4
3
2
1
0 m
FORT WALL
COLLAPSE
BL
NA
Mag. N 1987
True N
QQ
RR
SS
TT
UU
VV
WW
Section of Floor in N. Fort
13 m
12
11
10
9
8
7
6
5
4
3
2
1 m
Mag. N 1987
True N
FORT WALL
CED
EA
G
H
I
J
K
L
M
Sandstone, some rough cut
Granite
Rock Alignment
Brick
Clay Plaster
Shell Plaster

Figure B6. Detailed drawing of paving stones in interior of fort at Oudepost I. (Schrire et al. 1993: 22, 23)

The Lodge

The soldiers stationed at the outpost resided in the lodge (or *logie*), a rectangular, stone structure that stood next to the fort. It was 19.85 by 5.65 m (63 by 18 Rhineland feet), with two rooms, each with its own entrance. Although its walls were straight, the corners of the lodge do not quite achieve 90 degrees (Schrire 1995: 97). The standing walls are so low that the lodge was originally thought to be a modified form of the traditional *kapstylhuisie*, a low-walled structure whose roof extended to the ground and which was commonly built in the early days of the Cape Town colony (Schrire et al. 1993: 24; Walton 1981). However, Schrire has revised her interpretation (Chapter 2), and the model shows this revised interpretation with a gable and higher walls. It was based on an interpretation of similar lodge that was built in Mauritius in 1698 during the Second Period of Dutch occupation (1664-1710) and whose foundation walls resemble those of the Oudepost lodge (Floore and Jayasena 2010: 325, 329-332).

The Oudepost lodge was built from the same local granite as the fort, but the regularity of its walls and the frequency of adherent fragments of shell plaster conveyed the impression that plaster was a more definite feature here than in the fort (Schrire et al. 1993: 24). Fragments of plaster with reed impressions suggest that cross beams were linked with patches to the roof (ibid.: 24). Thatching is confirmed by an archival record requesting materials (Western Cape Archives and Records Service, LM 19: 432; see Schrire et al. 1993:24). The rooms were unpaved and the building had no chimney, but several hearths suggest that fires were laid directly on the sand (Schrire et al. 1990: 272). Given the absence of a chimney, a gap must have been present between the walls and the roof to allow the smoke to filter out, and it has been rendered so in the model. A window might have been present in the back room (Schrire et al. 1990: 272), but the evidence was tentative and it was omitted in the reconstruction.

GCL

Beyond the north wall of the fort stood a small rectangular structure, GCL, built of a single course of stones, laid so that they were more regular on the outer face than within the structure (Figures B1, B3). It was filled with coarse sandstone. Unlike the fort and lodge, which were built on rock and sterile sand, one corner of this structure lay on a fill of charcoal and brick packed up against the wall of the fort. The origin of this fill is unclear, but given that the stones show no signs of heating, the charcoal must have been cold when it was deposited there (Schrire et al. 1990: 275). Pipe stems in the fill are consistent with the later period of occupation of the fort (ibid.: 288) but inconsistent with the Khoekhoe attack in 1673 when the outpost must have been burned (Schrire 1990: 13).

In the absence of rockfall around GCL, this structure was unlikely to have ever been taller than it stands today. Lacking a pit, it does not resemble the remains of a privy, and its proximity to the rest of the buildings makes a magazine an unlikely possibility. It might have been a platform for an insignia or flag (Schrire 1990: 275; Schrire 1995: 89-90), although there is no direct evidence to support this idea. Unsatisfactory as this explanation might seem, a flag certainly must have been present at the site, and so it is interpreted as such in the model. The flag chosen is that of the Dutch East India Company. Two versions of this flag existed historically, as it mirrored the color of the flag of the Dutch United States. The top stripe of both flags was originally orange in order to acknowledge the significant contributions of the House of Orange in the fight for independence, but in 1652 this was changed to red in order to place a greater emphasis on the nation itself, and this is how it is shown here (Motley 1908: 835-836).

Discussion

Oudepost I was one outpost in the chain of the VOC trading network that sought to establish and proclaim Dutch hegemony throughout their empire. It was small, and given the ease with which it fell to an indigenous Khoekhoe assault, it would probably never have been able to withstand a hostile attack from a European ship. The reconstruction of Oudepost I (Figure B7) portays it as a small post, visible from the sea only once a ship had sailed past the mouth of the bay and down into the lagoon. For all its militarily correct structures and angles, it was hardly an imposing structure. It calls to mind the VOC outpost Fort Frederik Hendrik in Mauritius, where recent excavations revealed that the inland two bastions of the fort were likely never completed and the fort was simply a façade facing the sea (Floore and Jayasena, 2010: 336). In other words, both outposts were largely symbolic proclamations of European possession and power. Both served to announce the Dutch presence and remind rivals of the might of the empire. Although not defensible on their own, they provided a diplomatic statement of Dutch power in the East India trading world, and along with many similar outposts, constituted a crucial part of the VOC empire.

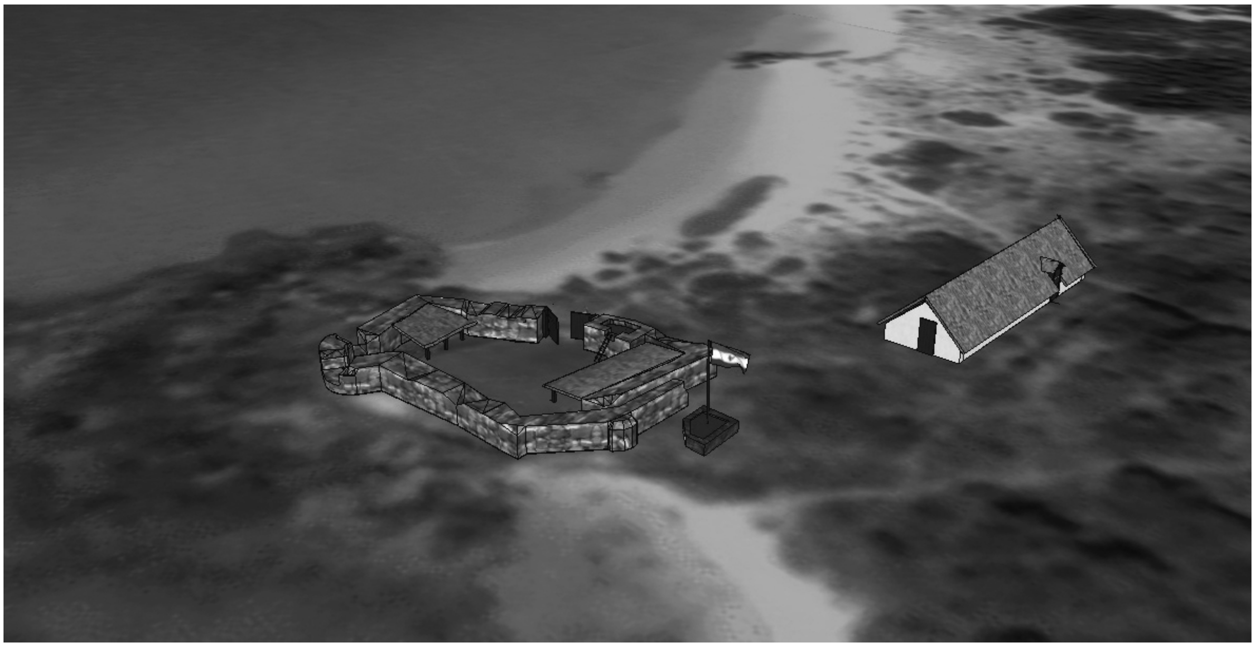


Figure B7. Complete reconstruction of Oudepost I, superimposed on a satellite image of the area. (Schwindinger 2012)

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APPENDIX C

Oudepost I: Stratigraphic Units listed within each Level from Youngest to Oldest

Unit	Level	Sub-Unit	Square and Spit
Fort	X	JN	
		JN Cistern	
		KS	
		RG	Q9, 11; O11, P9,11
		CTF	AW 1,2
		CTGCL	AW 1a-4; RGAW; R8; S3; S8; T8
		GCL	
	I	AY	
		BL 1-3	
		CED	
		EA 1, H, 2	
		GY	
		GY Entrance	
		NA	
		RB 1,2,3	
		PT 1	
	II	EA 3, 4, M	
		BL 4	
		PT 2	

LODGE			
LF (Front room)	I	LA 1	
		LC 1	
		LCD 1	
		LD 1	
		LJ 1	A025 1-5
		LK 1	C026 1-5
		LB 1,2,2a	C032-38 1,2,2a; D032-38 1,2,2a; E032-37 1,2,2a; E0F0 33-34 1,2; F033-37 1,2,2a
	II	LA 2,3	
		LC 2,3	
		LCD 2,3	
		LD 2	
		LJ 2	A025 6-11
		LK 2	C026 6-9
		LB 3,4	C0 32-38 3,4; D0 32-38 3,4; E0 32-37 3,4; E0F0 33-34 3,4; F0 33-37 3-5
LR (Rear room)	I	LE-H 1 (Rockfall)	E038 1,2; F038 1,2; G0 38 1,2 (DC= door clearance)
		LG 1	
		LFG 1, floor	
		LF 1-3	
		L-H fireplace	
	II	LE-H 2,3	E038 3-6; F038 3-6; G038 3-6
LX (Exterior)	I		E026 1-3; E027 1-6; E028-29 1-3; E040-41 1; F0 26 1-4; F027 1-5; F0 28 1-5; F029 1-6; F030-34 1-3; F032 1-3; G026-29 1-4; G030-37 1-3; H030-38 1-3; NWQ 1-3
	II		E026 4-6; E027 7-12; E028-29 4-8; F0 26 5-12; F027 6-13; F0 28 6-12; F029 7-11; F030-34 4-9; F032 4,5; G026-29 5-12; G030-37 4,5; H030-38 4,5; NWQ 4,5

LX (Entrance)	I	MK 1,1a-d	
		JD 1	
		FR 1	
	II	MK 2, 2a-c	
		JD 2,3	
		FR 2	
Burial	NP		Y 7a-9b; Z7a-9b
Test pits	NP		A014; B057; F04,9; J01; L019; M014,19,23; N04,39; P035; F19; H23; K38,45; M21; O19,30,33,15; Q40; S18;27; T1; X26,29,71,97; Y5; YZ(XY)32; Z13,42; ZZ6
DP (Intertidal Dump)	DP	1-14, 16	
NP (Non-Provenanced)	NP		Haumann coll., LM coll., Beach; JA; NARB, NARB X ll., Malan coll., Ft wall

*For more information about these groupings see Schrire, C., Deetz, J., Lubinsky, D. & Poggenpoel, C. (1990). The chronology of Oudepost I, Cape, as inferred from an analysis of clay pipes. *Journal of Archaeological Science* 17, 269-300.

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APPENDIX D

Oudepost I: Analysis of Clay Pipes from the Intertidal Dump, DP*

CP #	DP Unit	Stem Bore Diameter (mm)	Bowl Shape (Duco 1982: 111)	Stamp	Reference	Date
1	1	3.2	B-C	?crown	Duco 1987: 32 #23	1675-1710
2	1	2.5	?	Hand	Duco 1982: 67 #234	1680/1700-1784
3	1	2.2	?	7 dots on side		
4	2	2.2	?D			
5	2	2.2				
6	5	2.2		Duck		
7	5	2.2	E			
8	5	2.2		30 crowned	Duco 1982: 100 #653	1714-1940
9	9			6 dots		
10	5	2.5		Rose	Duco 1982: 48 #2	1660/1690-1715/25
11	5	1.7	-	56 crowned	Duco 1982: 102 #679	1692-1897
12	6	2.5	?	IvK	Duco 1982: 90 #532a	1660/1670-1705/1715
13	10	2.2				
14	2	1.7	D			
15	10	2.2	D			
16	2	2.2	D			
17	2		D			
18	2	1.7	D			
19	Beach	2	D			
20	5	1.7	D			
21	1		D			
22	10	2.0	E			
23	2	1.7	E			
24	14	2.0	E			
25	1	2.0	E			
26	1	2.0	E			
27	2	2.2	E			
28	1	2.2	E			
29	14	2.0	E			
30	5		E			
100	5	2.0		Rose	Duco 1982: 48 #2	1660/90-1715/1725
101	5	2.0				
102	6	2.2		3 dots bowl & heel		

* Duco, D. H. (1982). *Merken van Goudse pijpenmakers 1660-1940*. Poperinge: Uitgeversmaatschappij De Tijdstroom B. V. Lochem

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APPENDIX E

Bottle Analysis

Bottles were analyzed according to the protocols set out in this appendix. The relevant features of the bottles are shown in Figure E.1

Bases

G#: Catalog number in the Moat assemblage

Fragments: Number of fragments within this unit

MNV: Minimum number of vessels

Features:

1. Maximum diameter (mm)
2. Maximum diameter resting point of base (mm)
3. Ratio 1:2 (1/2 x 100)
4. Maximum width of sides
5. Bulbousness: Ratio 4:2 (4/2 x 100)
6. Kick depth (mm)
7. Basal profile cross section:
    a. Steep conical
    b. High rounded conical
    c. Low rounded conical
    d. Narrow domed
    e. High domed
    f. Low domed
    g. Flat domed
    h. Flat
8. Pontil
9. Maximum diameter of pontil scar (mm)

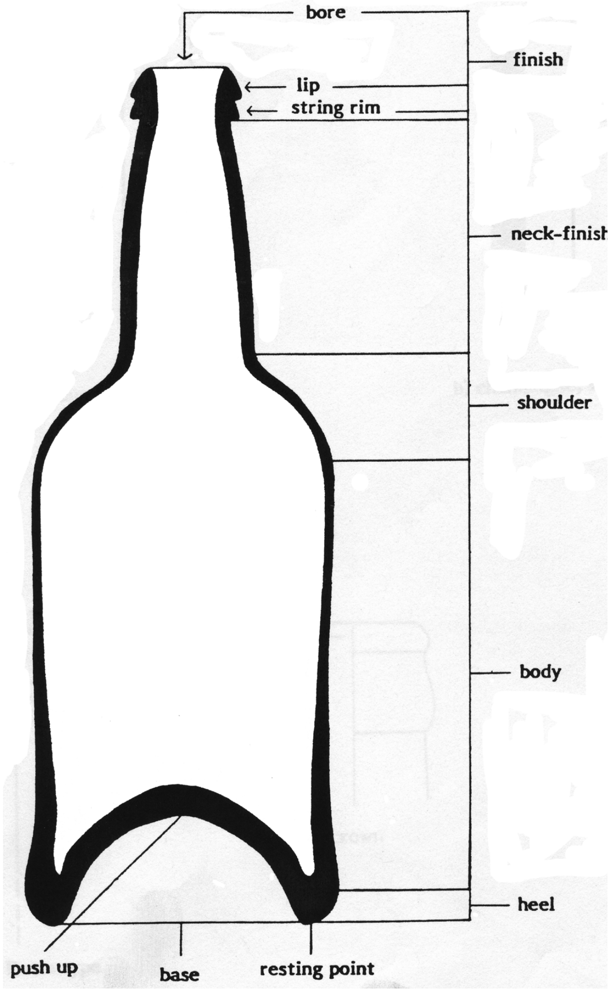
bore
finish
lip
string rim
neck-finis
shoulder
body
heel
push up
base
resting point

Figure. E1.

Necks

G#: Catalog number in the Moat assemblage

Fragments: Number of fragments within this unit

MNV: Minimum number of vessels here

Features:

1. Bore inner rim diameter (mm)
2. Bore outer rim diameter (mm)
3. Lip shape
    a. Cracked off
    b. Straight smooth finish
    c. Flattened, sheared
4. Neck length mm
5. Neck shape
    a. Flared up
    b. Flared down
    c. Everted
6. String rim
    a. Rounded trailed
    b. Rounded, flattened
    c. 'V'-tooled
    d. Flat
7. Shoulder slope from base of neck
8. Shoulder width from base of neck

APPENDIX F

Objects of Personal Adornment

Castle: Van der Stel Moat (M90)

There are 97 buttons in the Castle Moat collection, as follows:

Waistcoat buttons

Bone

13 mm

BT 1 Complete bone button with drilled shank. Convex face with incised rim. Intact shank. D = 13 mm.

15 mm

Undecorated

BT 2 Complete bone button with drilled shank. Convex undecorated face. Intact shank. Face is spalled. D = 15 mm.

Decorated

BT 3, 97 Complete bone buttons with drilled shank. Convex faces with incised rims. Intact shanks. D = 15 mm.

16 mm

Undecorated

BT 4 Complete bone button. Convex undecorated face. Broken shank. D = 16 mm.

Decorated

BT 5, 98 Complete bone buttons with drilled shanks. Convex faces with incised rims. Intact shanks. D = 16 mm.

17 mm

Undecorated

BT 6 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 17 mm.

Decorated

BT 7, 99 Complete bone button with drilled shank. Convex face with incised rim. Intact shank. D = 17 mm.

Coat buttons

Metal

18 mm

Undecorated

BT 8 Cast copper alloy button with flat surface. Drilled shank cast with button. D = 18 mm.

32 mm

Undecorated

BT 9 Two-part button with convex surface. Two holes in button back to release gas during brazing process. Dented and punctured. Shank missing. D = 32 mm.

Bone

19 mm

Undecorated

BT 10 Complete bone button with drilled shank. Convex undecorated face. Edge worn. Intact shank. D = 19 mm.

Decorated

BT 11 Complete bone button with drilled shank. Slightly convex face with incised rim. Intact shank. D = 19 mm.

20 mm

Undecorated

BT 12, 100 Complete bone button with drilled shank. Convex undecorated face. Broken shank. D = 20 mm.

BT 13 Bone button with drilled shank. Convex undecorated face. Edge broken on one side. Intact shank. D = 20 mm.

Decorated

BT 14 Complete bone button with drilled shank. Convex face with green coloring. Broken shank; threadwear present. D = 20 mm.

BT 15 Complete bone button with drilled shank. Convex face with incised rim. Intact shank. D = 20 mm.

21 mm

Undecorated

BT 16 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 21 mm.

BT 17 Bone button with drilled shank. Convex undecorated face. Intact shank; threadwear present. D = 21 mm.

Decorated

BT 18 Complete bone button with drilled shank. Convex face with incised rim. Intact shank. D = 21 mm.

22 mm

Undecorated

BT 19 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 22 mm.

BT 20 Complete bone button with drilled shank. Flat face with tapered rim; undecorated face. Intact shank. D = 22 mm.

BT 21 Bone button with drilled shank. Convex undecorated face. Intact shank. Edge broken. D = 22 mm.

Decorated

BT 22 Complete bone button with drilled shank. Convex face with incised rim. Intact shank. D = 22 mm.

23 mm

Undecorated

BT 23 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 23 mm.

Decorated

BT 24 Complete bone button with drilled shank. Convex face with incised rim. Broken shank; threadwear present. D = 23 mm.

24 mm

Decorated

BT 25 Complete bone button with drilled shank. Convex face; incised rim. Broken shank. D = 24 mm.

25 mm

Undecorated

BT 26 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 25 mm.

Unidentified function

Bone

7 mm

Undecorated

BT 27 Complete bone button with drilled shank. Steeply pitched convex design. Broken shank. Possible sleeve or shirt button. D = 7 mm.

8 mm

Decorated

BT 28 Complete bone button with drilled shank. Convex face with incised rim. Intact shank. D = 8 mm.

9 mm

Undecorated

BT 29, 30, 31, 32, 33, 34 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 9 mm.

12 mm

Undecorated

BT 35 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 12 mm.

BT 36 Complete bone stud. Convex undecorated face. Edge worn. Broken shank. D = 12 mm.

13 mm

Undecorated

BT 37 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 13 mm.

BT 38 Bone button fragment. Convex undecorated face. Intact shank. D = 13 mm.

BT 39, 101 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 13 mm.

14 mm

Undecorated

BT 40 Complete bone button with drilled shank. Convex face. Intact shank. D = 14 mm.

BT 41 Complete bone button with drilled shank. Convex face. Intact shank. D = 14 mm.

BT 42-53 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 14 mm.

BT 54, 55 Bone button fragment. Convex undecorated face. Broken shank. D = 14 mm.

BT 56 Complete bone button with drilled shank. Flat undecorated face. Shank broken. D = 14 mm.

BT 57 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D =14 mm.

Decorated

BT 58 Complete bone button with drilled shank. Turned design on slightly convex face. Intact shank. Possible waistcoat button. D = 14 mm.

15 mm

Undecorated

BT 59-67 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 15 mm.

BT 68-70 Bone button fragment. Convex undecorated face. Intact shank. D = 15 mm.

BT 71 Complete bone button with drilled shank. Convex undecorated face. Broken shank. D = 15 mm.

BT 72 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 15 mm.

16 mm

Undecorated

BT 73 Complete bone button with drilled shank. Convex, steeply pitched undecorated face. Intact shank. Possible waistcoat button. D = 16 mm.

BT 74 Complete bone button with drilled shank. Convex undecorated face. Intact shank. Possible waistcoat button. D = 16 mm.

BT 75-77 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 16 mm.

BT 78 Complete bone button with drilled shank. Convex undecorated face. Broken shank; threadwear present. D = 16 mm.

BT 79-83 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 16 mm.

BT 84 Bone button fragment. Convex undecorated face. Intact shank. D = 16 mm.

Decorated

BT 85 Complete bone button with drilled shank. Convex face with incised rim. Intact shank. D = 16 mm.

17 mm

Undecorated

BT 86 Complete bone button with drilled shank. Convex undecorated face. Intact shank. Possible waistcoat button. D = 17 mm.

BT 87 Bone button fragment. Convex undecorated face. Intact shank. D = 17 mm.

BT 88 Complete bone button with drilled shank. Convex undecorated face. Intact shank. Edge broken. D = 17 mm.

18 mm

Undecorated

BT 89 Complete bone button with drilled shank. Convex undecorated face. Broken shank. D = 18 mm.

BT 90-91 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 18 mm.

BT 92 Bone button fragment. Convex undecorated face. Intact shank. D = 18 mm.

BT 93 Bone button fragment. Convex undecorated face. Broken shank. D = 18 mm.

19 mm

Undecorated

BT 94 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 19 mm.

Sew-through

BT 96 Bone button core. Central hole. Convex on one side, flat on the other. D = 9 mm.

Oudepost I (OPI)

Aglets

A 1 Aglet made of copper alloy sheet metal with straight seam and rounded tip; crimped dimple at base to hold lace fast. L = 23; W = 3.5 mm.

A 2 Aglet made of copper alloy sheet metal with straight seam and rounded tip; crimped dimple at base to hold lace fast. L = 20; W = 3.5 mm.

Buckles

Shoe Buckles

Whole Buckles

BK 1 Double framed annular shoe buckle made of copper alloy with an inner band of nailheads and outer ring of ovate beading. Decoration is imparted by the mold. Pin is cast with the frame. Stud chape; no tongue. L = 39 mm; W = 26 mm. Tongue = 31 mm x 11 mm. Stud = 7 mm.

BK 2 Double framed trapezoidal shoe buckle with beveled interior edge of copper alloy. Lobed on the outer edge. Flared molded band applied to top of pin terminal. Pin is cast with the frame. Stud chape, no tongue. L = 42 mm; W = 23 mm. Tongue = 27 x 9 mm. Stud = 8 mm.

Frames

Whole

BK 3 Whole rectangular framed copper alloy shoe buckle with rounded corners. Flared at buckle ends with a notched design over the pin terminals. No chape. L = 44 mm; W = 31 mm.

BK 4 Whole rectangular framed copper alloy shoe buckle. Flared at ends on the interior with transverse lines over the pin terminals. No chape. L = 30 mm; W = 23.

BK 5 Whole rectangular framed copper alloy shoe buckle. Sharply pitched beveled interior. No chape. L = 45 mm; W = 34 mm.

Fragments

BK 6 Very corroded iron shoe buckle frame fragment. Rectangular with rounded corners. L = 40; W = 27 mm.

BK 7 Very corroded iron shoe buckle frame fragment. Rectangular with rounded corners. L = 29 mm; W = 24 mm.

BK 8 Corroded iron shoe buckle frame. Rectangular with rounded corners. L = 39 mm; W = 27 mm.

BK 9 Openwork copper-alloy shoe buckle with interwoven ribbon design fragment. Sub rectangular in shape. Bow at center of frame end. Beading along the inner and outer edges and nailhead design along outer register. No chape. Matches BK 10 and 11. L = 46 mm; W = 45 mm.

BK 10 Openwork copper-alloy shoe buckle with interwoven ribbon design fragment. Subrectangular in shape. Bow at center of frame end. Beading along the inner and outer edges and nailhead design along outer register. No pin terminal present. Matches BK 9 and 11. No chape. L = 51 mm; W = 30 mm.

BK 11 Openwork copper-alloy shoe buckle with interwoven ribbon design fragment. Sub rectangular in shape. Bow at center of frame end. Beading along the inner and outer edges and nailhead design along outer register. Frame edge only. No pin terminal present. Matches BK 9 and 10. No chape. L = 51 mm; W = 16 mm.

BK 12 Rectangular copper alloy shoe buckle frame fragment. Simple design with flare and beveling in interior edge. Both pin terminals present. No chape. L = 33 mm; W = 32 mm.

BK 13 Rectangular copper alloy shoe buckle frame fragment. Sharply pitched beveled interior. Worn surface. One pin terminal present. No chape. L = 33 mm; W = 32 mm.

BK 14 Double framed sub annular shoe buckle frame fragment. One side and pin present. Undecorated and worn surface. No chape. L = 34 mm; W = 27 mm.

BK 15 Sub rectangular copper alloy shoe buckle frame with molded contour design with chevrons at center of frame end. One complete side. Broken at pin terminal. Matches BK 16. No chape. L = 24 mm; W = 31 mm.

BK 16 Sub rectangular copper alloy shoe buckle frame with molded contour design with chevrons at center of frame end. Broken at pin terminal. No chape. Matches BK 15. L = 24 mm; W = 31 mm.

Chapes

BK 17 Very corroded iron shoe buckle chape roll. Cooking-pot shape with single tongue. L = 38, W = 35.

BK 18 Copper alloy shoe buckle chape roll. Cooking pot shape with nodule base. Single tongue. Dutch style. L = 31, W = 33.

BK 19 Copper alloy shoe buckle chape roll. Cooking pot shape with single tongue. L = 22 mm; W = 27 mm.

BK 20 Copper alloy shoe buckle chape roll. Cooking pot shape with single tongue. L = 28 mm; W = 29 mm.

BK 23 Copper alloy shoe buckle chape roll. Cooking pot shape with single tongue. L = 32 mm; W = 26 mm.

Knee buckle

Whole

BK 21 Complete iron knee buckle. Anchor shaped chape. Corrosion obscures any surface decoration, but likely undecorated flat frame. L = 42 mm; W = 34 mm.

Strap buckle

Whole

BK 22 Complete strap buckle. Double framed sub annular strap buckle. Decorative flare at sides of pin. Tongue attached. Pin sleeve made of sheet metal. L = 41 mm; W = 30 mm.

Buttons

Sleeve buttons

Metal

Undecorated

BT 1 Copper alloy sleeve button. Undecorated. Convex face. Broken flattened U-shaped shank. D = 10.5 mm.

Decorated

BT 2 Copper alloy sleeve button set with white stone. Beaded border. Flattened U-shaped shank. Connecting wire loop present. D = 12 mm.

BT 106 Copper alloy sleeve button set. Chained circle decoration border. Central nipple with cast floral design. Flattened u-shaped shank. Connecting wire loop present. D = 15 mm..

BT 107 Copper alloy sleeve button set. Convex decorated face with tiny dots on the outer rim. Flattened u-shaped shank. Connecting wire loop present. D = 8 mm.

Waistcoat buttons

Metal

12 mm

Undecorated

BT 3 Cast copper alloy button with convex surface and no decoration. Cast shank. D = 12 mm.

13 mm

Undecorated

BT 4 Cast copper alloy button with convex surface and no decoration. Drilled eye. D = 13.5 mm.

BT 5 Cast copper alloy button with convex surface and no decoration. Shank missing. D = 13.5 mm.

BT 6 Cast copper alloy button with convex surface and no decoration. Shank cast with button. D = 13.5 mm.

14 mm

Undecorated

BT 7 Fragment of cast copper alloy button with convex surface and no decoration. Shank broken. D = 14 mm.

BT 8 Cast copper alloy button with convex surface and no decoration. Shank cast with button. D = 14 mm.

BT 9 Cast copper alloy button with convex surface and no decoration. Shank missing. D = 14 mm.

BT 10 Cast copper alloy button with flat surface and no decoration. Brazed shank with broken eye. D = 14 mm.

BT 11 Cast copper alloy button with convex surface and no decoration. Shank missing. D = 14.5 mm.

15 mm

Undecorated

BT 12 Hollow cast copper alloy button fragment. Face of two-part button. No decoration. D = 15 mm.

BT 13 Cast copper alloy button face of two-part brazed button.. No decoration. D = 15 mm.

17 mm

Undecorated

BT 14 Cast copper alloy button with flat surface and no decoration. Applied omega shank. D = 17 mm.

BT 15 Cast copper alloy button with convex surface and no decoration. Drilled shank. D = 17.5 mm.

Bone

13 mm

Decorated

BT 16 Complete bone button with drilled shank. Concave face with border and nipple at center. Shank broken. D = 13.5 mm.

14 mm

Undecorated

BT 17 Complete bone button with drilled shank. Convex undecorated face. Shank intact. D = 14 mm.

BT 18 Complete bone button with drilled shank. Convex undecorated face. Shank detached. D = 14 mm.

BT 19 Complete bone button with drilled shank. Convex undecorated face. Shank detached. D = 14 mm.

BT 20 Complete bone button with drilled shank. Convex undecorated face. Shank intact. D = 14.5 mm.

Decorated

BT 21 Complete bone button with drilled shank. Flat face with bevelled edged. D = 14 mm.

15 mm

Undecorated

BT 22 Complete bone button with drilled shank. Convex undecorated face. Shank intact. Very worn. D = 15 mm.

BT 23 Complete bone button with drilled shank. Convex undecorated face. Shank intact. D = 15 mm.

BT 24 Complete bone button with drilled shank. Convex undecorated face. Shank intact. Very worn. D = 15 mm.

BT 25 Complete bone button with drilled shank. Convex undecorated face with broken edge. Shank intact. D = 15 mm.

Decorated

BT 26 Complete bone button with drilled shank. Concave face with incised border and nipple at center. Shank intact. D = 15 mm.

16 mm

Undecorated

BT 27 Complete bone button with drilled shank. Convex undecorated face with broken edge. Shank intact. D = 16 mm.

18 mm

Decorated

BT 28 Complete bone button with drilled shank. Flat face with bevelled edged. Broken shank. D = 18 mm.

BT 29 Complete bone button with drilled shank. Convex face with incised edge. Intact shank. D = 18 mm.

Sew-through

15 mm

BT 30 Complete bone button core with center hole. Domed shape. Irregular hole on surface. D = 15 mm.

BT 31 Bone button core with center hole. Broken edge. Domed shape. D = 15 mm.

16 mm

BT 32 Bone button core with center hole. Broken edge. Flat. D = 16 mm.

17 mm

BT 33 Bone sew-through button with four holes. Incised border on front surface to create softly rounded border. D = 17.5 mm.

Coat buttons

Metal

14 mm

Decorated

BT 34 Hollow cast copper alloy button. Octagonal shape and nipple decoration on domed button. Hole in button back to release gas during casting process. Shank missing. D = 14 mm.

15 mm

Decorated

BT 35 Cast copper alloy button with domed surface. Crossed lines and nipple decoration. Shank broken D = 15 mm.

17 mm

Decorated

BT 36 Cast copper alloy button with flat surface. Engraved flower design. Brazed alpha shank. D = 17.5 mm.

Undecorated

BT 37 Cast copper alloy button with flat surface.. Brazed alpha shank. D = 17.5 mm.

18 mm

Decorated

BT 38 Stamped copper alloy button cover for two-part stamped metal-covered button. Stamped oval design with sunburst. Stamped textured surface. D = 18 mm.

BT 39 Hollow cast copper alloy button with domed surface. Nipple decoration. Brazed shank. Hole in button back to release gas during casting process. D = 18.5 mm.

BT 40 Hollow cast copper alloy button with domed octagonal surface. Faceted with nipple decoration. Brazed shank. Hole in button back to release gas during casting process. D = 18.5 mm.

19 mm

Undecorated

BT 41 Cast copper alloy button with convex surface. Undecorated. Brazed alpha shank. D = 19 mm.

BT 42 Cast copper alloy button with convex surface. Very poor condition. Brazed alpha shank. D = 19 mm.

23 mm

Undecorated

BT 43 Cast copper alloy button with flat surface. Undecorated. Cast shank with drilled eye. D = 23 mm.

28 mm

Undecorated

BT 44 . Cast copper alloy button back of two-piece brazed button. Loop shank inserted into button back. Crushed. D = 28 mm.

BT 45 Cast copper alloy button back of two-piece brazed button. Loop shank inserted into button back and brazed. Crushed. D = 28 mm.

BT 46 Cast copper alloy button front of two-piece brazed button. Undecorated. Crushed. D = 28 mm.

BT 47 Cast copper alloy button with domed surface. Undecorated. Loop shank inserted into button back and brazed. Hole in button back to release gas during brazing process. D = 28.5 mm.

BT 48 Hollow cast copper alloy button with domed surface. Undecorated. Brazed alpha shank. Hole in button back to release gas during casting process. D = 28.5 mm.

29 mm

Undecorated

BT 50 Hollow cast copper alloy button with domed surface. Undecorated. Brazed alpha shank. Hole in button back to release gas during casting process. D = 29 mm.

30 mm

Undecorated

BT 51 Cast copper alloy button back of two-piece brazed button. Brazed alpha shank. D = 30 mm.

BT 52 Cast copper alloy button back of two-piece brazed button. Folded; edges bent. Inserted and brazed loop shank. D = 30 mm.

32 mm

Undecorated

BT 54 Two-part brazed button with convex surface. Loop shank inserted into button back and brazed. Hole in button back to release gas during brazing process. D = 32 mm.

Bone

19 mm

Undecorated

BT 55 Bone button fragment of shanked button. One-third of domed button face. No shank. D = 19 mm.

BT56 Complete bone button with drilled shank. Convex undecorated face. Intact shank. D = 19 mm.

BT 57 Fragment of shanked bone button. Domed face. No shank. D = 19 mm.

20 mm

Undecorated

BT 58 Complete bone button with drilled shank. Convex face. Intact shank. D = 20 mm.

BT 59 Complete bone button with drilled shank. Convex face. Intact shank. D = 20.5 mm.

22 mm

Decorated

BT 60 Complete bone button with drilled shank. Flat face with bevelled edged. D = 22 mm.

Sew-through

BT 61 Bone sew-through button with four holes. Assymetrically drilled. Softly rounded edge. D = 19.5 mm.

BT 62 Bone button core with center hole. Flat. D = 20 mm.

Unidentified function

Metal

9 mm

Undecorated

BT 63 Copper alloy button. Shank obscured by corrosion. Possible sleeve button. D = 9.5 mm.

10 mm

Decorated

BT 64 Cast copper alloy button with nippled decoration. Surface otherwise smooth. Attached loop shank. Possible waistcoat or doublet button. D = 10.5 mm.

11 mm

Undecorated

BT 65 Cast copper alloy button with smooth slightly convex surface. Worn on opposite surfaces from use. Attached loop shank. Possible waistcoat button. D = 11 mm.

BT 66 Cast copper alloy button with convex undecorated surface. Alpha shank cast with button. Possible waistcoat or doublet button. D = 11 mm.

BT 67 . Cast copper alloy button with convex undecorated surface. Attached loop shank cast with button. Possible waistcoat button. D = 11 mm.

BT 68 Cast copper alloy button with convex undecorated surface. Alpha shank cast with button. Possible waistcoat button. D = 11 mm.

Decorated

BT 69 Cast copper alloy button with convex surface. Cast rosette decoration. Attached loop shank cast with button. Possible waistcoat or doublet button. D = 11 mm.

BT 70 Cast copper alloy button with convex surface. Cast rosette decoration. Attached loop shank cast with button. Possible waistcoat or doublet button. D = 11 mm.

BT 71 Cast copper alloy button with flat surface with bevelled edge. Shank missing. Possible waistcoat button. D = 11.5 mm.

12 mm

Undecorated

BT 72 Cast copper alloy button with convex surface and no decoration. Shank broken. Possible waistcoat button. D = 12 mm.

BT 73 Cast copper alloy button with convex surface and no decoration. Loop shank cast with button. Possible waistcoat button. D = 12 mm.

BT 74 Cast copper alloy button with convex surface and no decoration. Shank missing. Possible waistcoat button. D = 12 mm.

BT 75 Hollow cast copper alloy button with convex surface and no decoration. Crushed. Two holes on reverse product of casting. Shank missing. Possible waistcoat button. D = 12 mm.

BT 76 Cast copper alloy button with convex surface. Very poor condition. No shank. Possible waistcoat button. D = 12 mm.

13 mm

Undecorated

BT 77 Hollow cast copper alloy button with steeply convex surface. Top portion of two-part button. Possible waistcoat or doublet button. D = 13 mm.

BT 78 Cast copper alloy button with convex surface and no decoration. Cast seam on back of button. Shank cast with button; drilled eye. Possible waistcoat button. D = 13 mm.

BT 79 Cast copper alloy button with convex surface and no decoration. Shank cast with button; drilled eye. Possible waistcoat button. D = 13 mm.

BT 80 Cast copper alloy button with convex surface and no decoration. Shank cast with button; drilled eye. Possible waistcoat button. D = 13 mm.

BT 81 Cast copper alloy button with convex surface and no decoration. Shank cast with button; drilled eye. Cast seam on back of button. Possible waistcoat button. D = 13 mm.

BT 82 Cast copper alloy button with convex surface and no decoration. Button back corroded. Possible waistcoat button. D = 13 mm.

BT 83 Cast copper alloy button with convex surface and no decoration. Poor condition; edges broken. Possible waistcoat button. D = 13 mm.

BT 84 Cast copper alloy button. Very poor condition. Brazed omega shank. Possible waistcoat button. D = 13 mm.

BT 85 Hollow cast copper alloy button with convex surface. Top portion of two-part button. Slightly dented and surface scratched (from use?). Possible waistcoat button.. D = 13 mm.

BT 86 Hollow cast copper alloy button. Back of two-part button. Shank missing. Possible waistcoat button. D = 13 mm.

BT 87 Hollow cast copper alloy button. Front of convex two-part button. Possible waistcoat button. D = 13 mm.

15 mm

Undecorated

BT 88 Fragment of face of two-part brazed button. Crushed. D = 15 mm.

16 mm

Undecorated

BT 89 Fragment of cast copper alloy button. Broken. D = 16 mm.

BT 90 Cast copper alloy button. Very poor condition. Crushed. D = 16 mm.

BT 91 Cast copper alloy button face of two-part button. No decoration; three holes puncture surface. D = 16 mm.

Decorated

BT 92 Cast copper alloy button face of two-piece brazed button. Stamped sunburst decoration in center. D = 16 mm.

17 mm

Decorated

BT 93 Cast copper alloy or iron button. Octagonal shape. Drilled shank. Very poor condition. D = 17.

Eyes

BT 94 Button eye. L = 7 mm; H = 6 mm.

BT 95 Wire button eye with portion of button attached. L = 6; W= 8.

BT 96 Wire button eye with portion of button attached. L = 4; W= 4.

Bone

13 mm

Undecorated

BT 97-98 Complete bone buttons with drilled shanks. Convex faces. D = 13 mm.

BT 99 Complete bone buttons with drilled shank. Convex face. D = 13 mm.

Sew-through

BT 100 Complete bone core with single hole. D = 13 mm.

Shell

BT 101 Shell button with shank. Shank very worn. Undecorated. D = 10.

BT 102 Sew-through shell button with two holes. Double band engraved at edge. D = 11.

Miscellaneous

Metal

BT 103 Cast metal stud. Undecorated flat face. D = 13 mm.

BT 104 Cast copper alloy frog. Complete. Two buttons connected by solid bar. L = 31; bar width = 4 mm; button diameter = 13 mm.

BT 105 Cast copper alloy frog fragment. Button with fragment of metal bar. Button diameter = 13 mm.

Button mold

M1 One piece of three piece button mold. Mold has two dimples to fit three pieces of mold together. Shank for frog type of button carved into mold present on anterior surface. Hole for pouring molten metal present on dorsal surface. Ventral surface exhibits smooth surface from use. L = 66 mm; W = 17 mm.

Jewelry

Rings

R 1 Copper alloy ring with stone set in cabochon setting. Stone in poor condition; possible amythest. Hoop tapers and is slightly convex. Bezel width = 7 mm; band diameter = 27 mm.

R2 Copper alloy band. Flat surface with etched design on either side. Possible wedding band. D = 27 mm; W = 4 mm.

Miscellaneous accessory

Chain

C1 Three links of chain made of round wire. Possible watch or chatelaine chain. L = 26 mm.

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ABOUT THE AUTHORS

Jeff Durst is the Project Director of the Ft. St. Louis Archaeological Project, the South Texas Regional Archaeologist, and Project Reviewer for the Texas Historical Commission. In recent years he has conducted the analysis of over 1,200 gunflints related directly and indirectly to both the 17th century shipwreck *La Belle* (1687) off the coast of Texas and the related terrestrial site of Fort St. Louis located in Victoria County, Texas.

Adam Heinrich is a 2010 Ph.D. from Rutgers University who works in historical archaeology and zooarchaeology. His research into material culture includes examining gravemarkers as reflections of consumerism across the colonial American landscape. His zooarchaeological research includes advocating for more rigorous taphonomic perspectives to historical faunal analyses as well as investigating animal consumption in colonial and early post-colonial contexts.

Stacey Jordan received her doctorate from Rutgers University, conducting research at the University of Cape Town on the local production and use of coarse earthenware. Her publications on coarse earthenware have appeared in The Getty Research Institute's *The Archaeology of Colonialism, International Journal of Historical Archaeology*, and *Journal of Archaeological Science*. She has been involved in historical archaeological projects in South Africa, the United States, and Puerto Rico, spanning from early colonial contact to the recent past. She is currently a Cultural Resources Practice Leader at AECOM.

Jane Klose has been analyzing ceramic assemblages excavated from historical archaeological sites throughout the Western Cape since 1986. Her pioneering work on Asian ceramics found in South Africa has led to international recognition. Klose is a member of the Oriental Ceramic Society in London and has collaborated widely, especially with colleagues with museums in the Netherlands and Oxford. She is an Honorary Research Assistant in the Department of Archaeology at the University of Cape Town, where she has taught specialist courses on the identification and analysis of excavated ceramics.

Carmel Schrire is a Distinguished Professor of Anthropology at Rutgers, The State University of New Jersey in New Brunswick, NJ. She was educated at the University of Cape Town and Cambridge University and received her doctorate at The Australian National University. She has done archaeological research in Australia and South Africa and has specialized in the application of hunter-gatherer history and ethnography the interpretation of the past. She is the author of *The Alligator Rivers: Prehistory and Ecology in Western Arnhem Land* (1982) and the award winning *Digging through Darkness: Chronicles of an Archaeologist* (1995).

Patricia Schwindinger is a graduate student of Nautical Archaeology at Texas A&M University. She completed her B.A. at Rutgers, The State University of New Jersey in 2012. She was awarded the Henry Rutgers Scholars Award for her Honors thesis reconstructing Oudepost I. She has also worked with Dr. Craig Feibel to create a series of images mapping the rise and fall of Lake Turkana, Kenya. She is interested in graphics and their applications in archaeology.

Carolyn L. White is an Associate Professor and holds the Mamie Kleberg Chair in Historical Preservation at the University of Nevada, Reno. Her work spans four centuries and currently focuses on daily life in 1860s Aurora, Nevada, and on the built environment of Black Rock City, the temporary city built for the Burning Man festival.